



## Sequence Listing

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Filvaroff, Ellen  
Gerritsen, Mary E.  
Goddard, Audrey  
Godowski, Paul J.  
Grimaldi, Christopher J.  
Gurney, Austin L.  
Watanabe, Colin K.  
Wood, William I.

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<210> 6

<211> 322

<212> PRT

<213> Homo Sapien

<400> 6

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Thr	Thr	Arg	Leu	Leu	Val	Gln	Gly	Ser	Leu	Arg	Ala	Glu	Glu	Leu
			20					25						30
Ser	Ile	Gln	Val	Ser	Cys	Arg	Ile	Met	Gly	Ile	Thr	Leu	Val	Ser
			35					40						45
Lys	Lys	Ala	Asn	Gln	Gln	Leu	Asn	Phe	Thr	Glu	Ala	Lys	Glu	Ala
			50					55						60
Cys	Arg	Leu	Leu	Gly	Leu	Ser	Leu	Ala	Gly	Lys	Asp	Gln	Val	Glu
			65					70						75
Thr	Ala	Leu	Lys	Ala	Ser	Phe	Glu	Thr	Cys	Ser	Tyr	Gly	Trp	Val
			80					85						90
Gly	Asp	Gly	Phe	Val	Val	Ile	Ser	Arg	Ile	Ser	Pro	Asn	Pro	Lys
			95					100						105
Cys	Gly	Lys	Asn	Gly	Val	Gly	Val	Leu	Ile	Trp	Lys	Val	Pro	Val
			110					115						120
Ser	Arg	Gln	Phe	Ala	Ala	Tyr	Cys	Tyr	Asn	Ser	Ser	Asp	Thr	Trp
			125					130						135

Thr Asn Ser Cys Ile Pro Glu Ile Ile Thr Thr Lys Asp Pro Ile	140	145	150
Phe Asn Thr Gln Thr Ala Thr Gln Thr Thr Glu Phe Ile Val Ser	155	160	165
Asp Ser Thr Tyr Ser Val Ala Ser Pro Tyr Ser Thr Ile Pro Ala	170	175	180
Pro Thr Thr Thr Pro Pro Ala Pro Ala Ser Thr Ser Ile Pro Arg	185	190	195
Arg Lys Lys Leu Ile Cys Val Thr Glu Val Phe Met Glu Thr Ser	200	205	210
Thr Met Ser Thr Glu Thr Glu Pro Phe Val Glu Asn Lys Ala Ala	215	220	225
Phe Lys Asn Glu Ala Ala Gly Phe Gly Gly Val Pro Thr Ala Leu	230	235	240
Leu Val Leu Ala Leu Leu Phe Phe Gly Ala Ala Ala Gly Leu Gly	245	250	255
Phe Cys Tyr Val Lys Arg Tyr Val Lys Ala Phe Pro Phe Thr Asn	260	265	270
Lys Asn Gln Gln Lys Glu Met Ile Glu Thr Lys Val Val Lys Glu	275	280	285
Glu Lys Ala Asn Asp Ser Asn Pro Asn Glu Glu Ser Lys Lys Thr	290	295	300
Asp Lys Asn Pro Glu Glu Ser Lys Ser Pro Ser Lys Thr Thr Val	305	310	315
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<210> 7

<211> 2586

<212> DNA

<213> Homo Sapien

<400> 7

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<210> 8

<211> 350

<212> PRT

<213> Homo Sapien

<400> 8

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Ala	Val	Pro	Thr	Ala	Pro	Ala	Pro	Ala	Pro	Thr	Ala	Thr	Ser	Ala
				20					25					30
Pro	Val	Lys	Pro	Gly	Pro	Ala	Leu	Ser	Tyr	Pro	Gln	Glu	Glu	Ala
				35					40					45
Thr	Leu	Asn	Glu	Met	Phe	Arg	Glu	Val	Glu	Glu	Leu	Met	Glu	Asp
				50					55					60
Thr	Gln	His	Lys	Leu	Arg	Ser	Ala	Val	Glu	Glu	Met	Glu	Ala	Glu
				65					70					75
Glu	Ala	Ala	Ala	Lys	Ala	Ser	Ser	Glu	Val	Asn	Leu	Ala	Asn	Leu

	80	85	90
Pro Pro Ser Tyr His Asn Glu Thr Asn Thr Asp Thr Lys Val Gly	95	100	105
Asn Asn Thr Ile His Val His Arg Glu Ile His Lys Ile Thr Asn	110	115	120
Asn Gln Thr Gly Gln Met Val Phe Ser Glu Thr Val Ile Thr Ser	125	130	135
Val Gly Asp Glu Glu Gly Arg Arg Ser His Glu Cys Ile Ile Asp	140	145	150
Glu Asp Cys Gly Pro Ser Met Tyr Cys Gln Phe Ala Ser Phe Gln	155	160	165
Tyr Thr Cys Gln Pro Cys Arg Gly Gln Arg Met Leu Cys Thr Arg	170	175	180
Asp Ser Glu Cys Cys Gly Asp Gln Leu Cys Val Trp Gly His Cys	185	190	195
Thr Lys Met Ala Thr Arg Gly Ser Asn Gly Thr Ile Cys Asp Asn	200	205	210
Gln Arg Asp Cys Gln Pro Gly Leu Cys Cys Ala Phe Gln Arg Gly	215	220	225
Leu Leu Phe Pro Val Cys Thr Pro Leu Pro Val Glu Gly Glu Leu	230	235	240
Cys His Asp Pro Ala Ser Arg Leu Leu Asp Leu Ile Thr Trp Glu	245	250	255
Leu Glu Pro Asp Gly Ala Leu Asp Arg Cys Pro Cys Ala Ser Gly	260	265	270
Leu Leu Cys Gln Pro His Ser His Ser Leu Val Tyr Val Cys Lys	275	280	285
Pro Thr Phe Val Gly Ser Arg Asp Gln Asp Gly Glu Ile Leu Leu	290	295	300
Pro Arg Glu Val Pro Asp Glu Tyr Glu Val Gly Ser Phe Met Glu	305	310	315
Glu Val Arg Gln Glu Leu Glu Asp Leu Glu Arg Ser Leu Thr Glu	320	325	330
Glu Met Ala Leu Gly Glu Pro Ala Ala Ala Ala Ala Ala Leu Leu	335	340	345
Gly Gly Glu Glu Ile	350		

<210> 9

<211> 1395  
<212> DNA  
<213> Homo Sapien

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<210> 10  
<211> 321  
<212> PRT  
<213> Homo Sapien

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Pro Gly Leu Met Cys Val Phe Gln Gly Tyr Ser Ser Lys Gly Leu  
35 40 45  
Ile Gln Arg Ser Val Phe Asn Leu Gln Ile Tyr Gly Val Leu Gly  
50 55 60  
Leu Phe Trp Thr Leu Asn Trp Val Leu Ala Leu Gly Gln Cys Val  
65 70 75  
Leu Ala Gly Ala Phe Ala Ser Phe Tyr Trp Ala Phe His Lys Pro  
80 85 90  
Gln Asp Ile Pro Thr Phe Pro Leu Ile Ser Ala Phe Ile Arg Thr  
95 100 105  
Leu Arg Tyr His Thr Gly Ser Leu Ala Phe Gly Ala Leu Ile Leu  
110 115 120  
Thr Leu Val Gln Ile Ala Arg Val Ile Leu Glu Tyr Ile Asp His  
125 130 135  
Lys Leu Arg Gly Val Gln Asn Pro Val Ala Arg Cys Ile Met Cys  
140 145 150  
Cys Phe Lys Cys Cys Leu Trp Cys Leu Glu Lys Phe Ile Lys Phe  
155 160 165  
Leu Asn Arg Asn Ala Tyr Ile Met Ile Ala Ile Tyr Gly Lys Asn  
170 175 180  
Phe Cys Val Ser Ala Lys Asn Ala Phe Met Leu Leu Met Arg Asn  
185 190 195  
Ile Val Arg Val Val Val Leu Asp Lys Val Thr Asp Leu Leu Leu  
200 205 210  
Phe Phe Gly Lys Leu Leu Val Val Gly Gly Val Gly Val Leu Ser  
215 220 225  
Phe Phe Phe Phe Ser Gly Arg Ile Pro Gly Leu Gly Lys Asp Phe  
230 235 240

Lys	Ser	Pro	His	Leu	Asn	Tyr	Tyr	Trp	Leu	Pro	Ile	Met	Thr	Ser	
				245					250					255	
Ile	Leu	Gly	Ala	Tyr	Val	Ile	Ala	Ser	Gly	Phe	Phe	Ser	Val	Phe	
				260					265					270	
Gly	Met	Cys	Val	Asp	Thr	Leu	Phe	Leu	Cys	Phe	Leu	Glu	Asp	Leu	
				275					280					285	
Glu	Arg	Asn	Asn	Gly	Ser	Leu	Asp	Arg	Pro	Tyr	Tyr	Met	Ser	Lys	
				290					295					300	
Ser	Leu	Leu	Lys	Ile	Leu	Gly	Lys	Lys	Asn	Glu	Ala	Pro	Pro	Asp	
				305					310					315	
Asn	Lys	Lys	Arg	Lys	Lys										
				320											

<210> 11  
 <211> 1901  
 <212> DNA  
 <213> Homo Sapien

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<210> 12

<211> 457

<212> PRT

<213> Homo Sapien

<400> 12

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Cys	Leu	Cys	Gly	Ser	Ala	Pro	Cys	Ile	Leu	Cys	Ser	Cys	Cys	Pro
				20					25				30	

Ala	Ser	Arg	Asn	Ser	Thr	Val	Ser	Arg	Leu	Ile	Phe	Thr	Phe	Phe
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

35					40					45				
Leu	Phe	Leu	Gly	Val	Leu	Val	Ser	Ile	Ile	Met	Leu	Ser	Pro	Gly
				50					55					60
Val	Glu	Ser	Gln	Leu	Tyr	Lys	Leu	Pro	Trp	Val	Cys	Glu	Glu	Gly
				65					70					75
Ala	Gly	Ile	Pro	Thr	Val	Leu	Gln	Gly	His	Ile	Asp	Cys	Gly	Ser
				80					85					90
Leu	Leu	Gly	Tyr	Arg	Ala	Val	Tyr	Arg	Met	Cys	Phe	Ala	Thr	Ala
				95					100					105
Ala	Phe	Phe	Phe	Phe	Phe	Phe	Phe	Thr	Leu	Leu	Met	Leu	Cys	Val
				110					115					120
Ser	Ser	Arg	Asp	Pro	Arg	Ala	Ala	Ile	Gln	Asn	Gly	Phe	Trp	Phe
				125					130					135
Phe	Lys	Phe	Leu	Ile	Leu	Val	Gly	Leu	Thr	Val	Gly	Ala	Phe	Tyr
				140					145					150
Ile	Pro	Asp	Gly	Ser	Phe	Thr	Asn	Ile	Trp	Phe	Tyr	Phe	Gly	Val
				155					160					165
Val	Gly	Ser	Phe	Leu	Phe	Ile	Leu	Ile	Gln	Leu	Val	Leu	Leu	Ile
				170					175					180
Asp	Phe	Ala	His	Ser	Trp	Asn	Gln	Arg	Trp	Leu	Gly	Lys	Ala	Glu
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Glu	Cys	Asp	Ser	Arg	Ala	Trp	Tyr	Ala	Gly	Leu	Phe	Phe	Phe	Thr
				200					205					210
Leu	Leu	Phe	Tyr	Leu	Leu	Ser	Ile	Ala	Ala	Val	Ala	Leu	Met	Phe
				215					220					225
Met	Tyr	Tyr	Thr	Glu	Pro	Ser	Gly	Cys	His	Glu	Gly	Lys	Val	Phe
				230					235					240
Ile	Ser	Leu	Asn	Leu	Thr	Phe	Cys	Val	Cys	Val	Ser	Ile	Ala	Ala
				245					250					255
Val	Leu	Pro	Lys	Val	Gln	Asp	Ala	Gln	Pro	Asn	Ser	Gly	Leu	Leu
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Gln	Ala	Ser	Val	Ile	Thr	Leu	Tyr	Thr	Met	Phe	Val	Thr	Trp	Ser
				275					280					285
Ala	Leu	Ser	Ser	Ile	Pro	Glu	Gln	Lys	Cys	Asn	Pro	His	Leu	Pro
				290					295					300
Thr	Gln	Leu	Gly	Asn	Glu	Thr	Val	Val	Ala	Gly	Pro	Glu	Gly	Tyr
				305					310					315
Glu	Thr	Gln	Trp	Trp	Asp	Ala	Pro	Ser	Ile	Val	Gly	Leu	Ile	Ile

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Arg Gln Val Asn Ser Leu Met Gln Thr Glu Glu Cys Pro Pro Met					
	350		355		360
Leu Asp Ala Thr Gln Gln Gln Gln Gln Glu Val Ala Ala Cys Glu					
	365		370		375
Gly Arg Ala Phe Asp Asn Glu Gln Asp Gly Val Thr Tyr Ser Tyr					
	380		385		390
Ser Phe Phe His Phe Cys Leu Val Leu Ala Ser Leu His Val Met					
	395		400		405
Met Thr Leu Thr Asn Trp Tyr Lys Pro Gly Glu Thr Arg Lys Met					
	410		415		420
Ile Ser Thr Trp Thr Ala Val Trp Val Lys Ile Cys Ala Ser Trp					
	425		430		435
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Leu Arg Asn Arg Asp Phe Ser					
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<210> 13

<211> 1572

<212> DNA

<213> Homo Sapien

<400> 13

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 <211> 234  
 <212> PRT  
 <213> Homo Sapien

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Tyr	Asp	Tyr	Tyr	Ser	Ser	Tyr	Phe	Asp	Ile	Phe	Leu	Leu	Ala	Val
				95					100					105
Phe	Arg	Phe	Lys	Val	Leu	Ile	Leu	Ala	Tyr	Ala	Val	Cys	Arg	Leu
				110					115					120
Arg	His	Trp	Trp	Ala	Ile	Ala	Leu	Thr	Thr	Ala	Val	Thr	Ser	Ala
				125					130					135
Phe	Leu	Leu	Ala	Lys	Val	Ile	Leu	Ser	Lys	Leu	Phe	Ser	Gln	Gly
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Ile	Glu	Thr	Trp	Phe	Leu	Asp	Phe	Lys	Val	Leu	Pro	Gln	Glu	Ala
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Glu	Glu	Glu	Asn	Arg	Leu	Leu	Ile	Val	Gln	Asp	Ala	Ser	Glu	Arg
				185					190					195
Ala	Ala	Leu	Ile	Pro	Gly	Gly	Leu	Ser	Asp	Gly	Gln	Phe	Tyr	Ser
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Pro	Pro	Glu	Ser	Glu	Ala	Gly	Ser	Glu	Glu	Ala	Glu	Glu	Lys	Gln
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 <213> Homo Sapien

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<211> 673

<212> PRT

<213> Homo Sapien

<400> 16

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Pro	Gly	Leu	Gln	Leu	Leu	Asp	Leu	Ser	Gln	Asn	Gln	Ile	Ala	Ser	
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Arg	Pro	Glu	Asp	Leu	Ala	Gly	Leu	Ala	Ala	Leu	Gln	Glu	Leu	Asp	
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Asn	Cys	Val	Cys	Pro	Leu	Ser	Trp	Phe	Gly	Pro	Trp	Val	Arg	Glu	
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Ser	His	Val	Thr	Leu	Ala	Ser	Pro	Glu	Glu	Thr	Arg	Cys	His	Phe	
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Asp	Phe	Gly	Cys	Pro	Ala	Thr	Thr	Thr	Thr	Ala	Thr	Val	Pro	Thr		350	355	360
Thr	Arg	Pro	Val	Val	Arg	Glu	Pro	Thr	Ala	Leu	Ser	Ser	Ser	Leu		365	370	375
Ala	Pro	Thr	Trp	Leu	Ser	Pro	Thr	Ala	Pro	Ala	Thr	Glu	Ala	Pro		380	385	390
Ser	Pro	Pro	Ser	Thr	Ala	Pro	Pro	Thr	Val	Gly	Pro	Val	Pro	Gln		395	400	405
Pro	Gln	Asp	Cys	Pro	Pro	Ser	Thr	Cys	Leu	Asn	Gly	Gly	Thr	Cys		410	415	420
His	Leu	Gly	Thr	Arg	His	His	Leu	Ala	Cys	Leu	Cys	Pro	Glu	Gly		425	430	435
Phe	Thr	Gly	Leu	Tyr	Cys	Glu	Ser	Gln	Met	Gly	Gln	Gly	Thr	Arg		440	445	450
Pro	Ser	Pro	Thr	Pro	Val	Thr	Pro	Arg	Pro	Pro	Arg	Ser	Leu	Thr		455	460	465
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Gln	Arg	Tyr	Leu	Gln	Gly	Ser	Ser	Val	Gln	Leu	Arg	Ser	Leu	Arg		485	490	495
Leu	Thr	Tyr	Arg	Asn	Leu	Ser	Gly	Pro	Asp	Lys	Arg	Leu	Val	Thr		500	505	510
Leu	Arg	Leu	Pro	Ala	Ser	Leu	Ala	Glu	Tyr	Thr	Val	Thr	Gln	Leu		515	520	525
Arg	Pro	Asn	Ala	Thr	Tyr	Ser	Val	Cys	Val	Met	Pro	Leu	Gly	Pro		530	535	540
Gly	Arg	Val	Pro	Glu	Gly	Glu	Glu	Ala	Cys	Gly	Glu	Ala	His	Thr		545	550	555
Pro	Pro	Ala	Val	His	Ser	Asn	His	Ala	Pro	Val	Thr	Gln	Ala	Arg		560	565	570
Glu	Gly	Asn	Leu	Pro	Leu	Leu	Ile	Ala	Pro	Ala	Leu	Ala	Ala	Val		575	580	585
Leu	Leu	Ala	Ala	Leu	Ala	Ala	Val	Gly	Ala	Ala	Tyr	Cys	Val	Arg		590	595	600
Arg	Gly	Arg	Ala	Met	Ala	Ala	Ala	Ala	Gln	Asp	Lys	Gly	Gln	Val		605	610	615

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 Leu Glu Pro Gly Pro Lys Ala Thr Glu Gly Gly Gly Glu Ala Leu  
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 <212> DNA  
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 <212> PRT  
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 35 40 45  
 Lys Asp His Thr Thr Ala Gly Arg Val Val Ala Gly Gln Ile Phe  
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 Leu Asp Ser Glu Glu Ser Glu Leu Glu Ser Ser Ile Gln Glu Glu  
 65 70 75  
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 80 85 90  
 Ile Ser Phe Leu Glu Ser Pro Asn Pro Glu Asn Lys Asp Tyr Glu  
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 Glu Pro Lys Lys Val Arg Lys Pro Ala Leu Thr Ala Ile Glu Gly  
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Leu	Trp	Cys	Ala	Thr	Thr	Tyr	Asp	Tyr	Lys	Ala	Asp	Glu	Lys	Trp	155	160	165
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Gln	Glu	Ala	Glu	Met	Met	Tyr	Gln	Thr	Gly	Met	Lys	Ile	Leu	Asn	185	190	195
Gly	Ser	Asn	Lys	Lys	Ser	Gln	Lys	Arg	Glu	Ala	Tyr	Arg	Tyr	Leu	200	205	210
Gln	Lys	Ala	Ala	Ser	Met	Asn	His	Thr	Lys	Ala	Leu	Glu	Arg	Val	215	220	225
Ser	Tyr	Ala	Leu	Leu	Phe	Gly	Asp	Tyr	Leu	Pro	Gln	Asn	Ile	Gln	230	235	240
Ala	Ala	Arg	Glu	Met	Phe	Glu	Lys	Leu	Thr	Glu	Glu	Gly	Ser	Pro	245	250	255
Lys	Gly	Gln	Thr	Ala	Leu	Gly	Phe	Leu	Tyr	Ala	Ser	Gly	Leu	Gly	260	265	270
Val	Asn	Ser	Ser	Gln	Ala	Lys	Ala	Leu	Val	Tyr	Tyr	Thr	Phe	Gly	275	280	285
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 <211> 1508  
 <212> DNA  
 <213> Homo Sapien

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 gtatttaggc tttgcctgct tgggtgtgatg taagggaat tgaaagactt 1350  
 gccattcaa aatgatcttt accgtggcct gcccctgct tatgggtccc 1400  
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 taaaagataa gtcaacccaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1500  
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<210> 20

<211> 319

<212> PRT

<213> Homo Sapien

<400> 20

Met Leu Phe Trp Val Leu Gly Leu Leu Ile Leu Cys Gly Phe Leu

1	5	10	15
Trp Thr Arg Lys Gly	Lys Leu Lys Ile	Glu Asp Ile Thr	Asp Lys
20		25	30
Tyr Ile Phe Ile Thr	Gly Cys Asp Ser	Gly Phe Gly Asn	Leu Ala
35		40	45
Ala Arg Thr Phe Asp	Lys Lys Gly Phe	His Val Ile Ala	Ala Cys
50		55	60
Leu Thr Glu Ser Gly	Ser Thr Ala Leu	Lys Ala Glu Thr	Ser Glu
65		70	75
Arg Leu Arg Thr Val	Leu Leu Asp Val	Thr Asp Pro Glu	Asn Val
80		85	90
Lys Arg Thr Ala Gln	Trp Val Lys Asn	Gln Val Gly Glu	Lys Gly
95		100	105
Leu Trp Gly Leu Ile	Asn Asn Ala Gly	Val Pro Gly Val	Leu Ala
110		115	120
Pro Thr Asp Trp Leu	Thr Leu Glu Asp	Tyr Arg Glu Pro	Ile Glu
125		130	135
Val Asn Leu Phe Gly	Leu Ile Ser Val	Thr Leu Asn Met	Leu Pro
140		145	150
Leu Val Lys Lys Ala	Gln Gly Arg Val	Ile Asn Val Ser	Ser Val
155		160	165
Gly Gly Arg Leu Ala	Ile Val Gly Gly	Gly Tyr Thr Pro	Ser Lys
170		175	180
Tyr Ala Val Glu Gly	Phe Asn Asp Ser	Leu Arg Arg Asp	Met Lys
185		190	195
Ala Phe Gly Val His	Val Ser Cys Ile	Glu Pro Gly Leu	Phe Lys
200		205	210
Thr Asn Leu Ala Asp	Pro Val Lys Val	Ile Glu Lys Lys	Leu Ala
215		220	225
Ile Trp Glu Gln Leu	Ser Pro Asp Ile	Lys Gln Gln Tyr	Gly Glu
230		235	240
Gly Tyr Ile Glu Lys	Ser Leu Asp Lys	Leu Lys Gly Asn	Lys Ser
245		250	255
Tyr Val Asn Met Asp	Leu Ser Pro Val	Val Glu Cys Met	Asp His
260		265	270
Ala Leu Thr Ser Leu	Phe Pro Lys Thr	His Tyr Ala Ala	Gly Lys
275		280	285
Asp Ala Lys Ile Phe	Trp Ile Pro Leu	Ser His Met Pro	Ala Ala



	290	295	300
Leu Gln Asp Phe Leu Leu Leu Lys Gln Lys Ala Glu Leu Ala Asn			
	305	310	315

Pro Lys Ala Val

<210> 21  
 <211> 1849  
 <212> DNA  
 <213> Homo Sapien

<400> 21  
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 tactgattcc caaatggatg atgttgaagt tgtttataca attgacattc 200  
 agaaatatat tccatgctat cagcttttta gcttttataa ttcttcaggc 250  
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 ttagagagag gctgcttcac aaaaacttgc aggagcattt ttcaaaccac 400  
 gaccttgttt ttctgctatt aacaccaagt ataataacag aaagctgctc 450  
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 acagggtacc tttagtgggt gccaatctgg gcatgtctga acaactgggt 550  
 tataaaactg tatcagggtc ctgtatgtcc actggtttta gccgagcagt 600  
 acaaacacac agctctaaat tttttgaaga agatggatcc ttaaaggagg 650  
 tacataagat aatgaaatg tatgcttcat tacaagagga attaaagagt 700  
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 gcataaagcc ttagacttag atgacagatg gcaattcaag agatctcggg 1100

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<210> 22  
 <211> 409  
 <212> PRT  
 <213> Homo Sapien

<400> 22  
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 Gly Phe Leu Leu Gly Glu Val Lys Gly Glu Ala Lys Asn Ser Ile  
 35 40 45  
 Thr Asp Ser Gln Met Asp Asp Val Glu Val Val Tyr Thr Ile Asp  
 50 55 60  
 Ile Gln Lys Tyr Ile Pro Cys Tyr Gln Leu Phe Ser Phe Tyr Asn  
 65 70 75  
 Ser Ser Gly Glu Val Asn Glu Gln Ala Leu Lys Lys Ile Leu Ser  
 80 85 90  
 Asn Val Lys Lys Asn Val Val Gly Trp Tyr Lys Phe Arg Arg His  
 95 100 105

Ser Asp Gln Ile	Met Thr Phe Arg Glu	Arg Leu Leu His Lys Asn	
	110	115	120
Leu Gln Glu His	Phe Ser Asn Gln Asp	Leu Val Phe Leu Leu Leu	
	125	130	135
Thr Pro Ser Ile	Ile Thr Glu Ser Cys	Ser Thr His Arg Leu Glu	
	140	145	150
His Ser Leu Tyr	Lys Pro Gln Lys Gly	Leu Phe His Arg Val Pro	
	155	160	165
Leu Val Val Ala	Asn Leu Gly Met Ser	Glu Gln Leu Gly Tyr Lys	
	170	175	180
Thr Val Ser Gly	Ser Cys Met Ser Thr	Gly Phe Ser Arg Ala Val	
	185	190	195
Gln Thr His Ser	Ser Lys Phe Phe Glu	Glu Asp Gly Ser Leu Lys	
	200	205	210
Glu Val His Lys	Ile Asn Glu Met Tyr	Ala Ser Leu Gln Glu Glu	
	215	220	225
Leu Lys Ser Ile	Cys Lys Lys Val Glu	Asp Ser Glu Gln Ala Val	
	230	235	240
Asp Lys Leu Val	Lys Asp Val Asn Arg	Leu Lys Arg Glu Ile Glu	
	245	250	255
Lys Arg Arg Gly	Ala Gln Ile Gln Ala	Ala Arg Glu Lys Asn Ile	
	260	265	270
Gln Lys Asp Pro	Gln Glu Asn Ile Phe	Leu Cys Gln Ala Leu Arg	
	275	280	285
Thr Phe Phe Pro	Asn Ser Glu Phe Leu	His Ser Cys Val Met Ser	
	290	295	300
Leu Lys Asn Arg	His Val Ser Lys Ser	Ser Cys Asn Tyr Asn His	
	305	310	315
His Leu Asp Val	Val Asp Asn Leu Thr	Leu Met Val Glu His Thr	
	320	325	330
Asp Ile Pro Glu	Ala Ser Pro Ala Ser	Thr Pro Gln Ile Ile Lys	
	335	340	345
His Lys Ala Leu	Asp Leu Asp Asp Arg	Trp Gln Phe Lys Arg Ser	
	350	355	360
Arg Leu Leu Asp	Thr Gln Asp Lys Arg	Ser Lys Ala Asn Thr Gly	
	365	370	375
Ser Ser Asn Gln	Asp Lys Ala Ser Lys	Met Ser Ser Pro Glu Thr	
	380	385	390

Asp Glu Glu Ile Glu Lys Met Lys Gly Phe Gly Glu Tyr Ser Arg  
395 400 405

Ser Pro Thr Phe

<210> 23  
<211> 2651  
<212> DNA  
<213> Homo Sapien

<400> 23  
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cgccgcccac accctctgcg gtccccgogg cgectgccac ctttccctcc 150  
ttccccgcgt ccccgccctcg ccggccagtc agcttgccgg gttcgctgcc 200  
ccgcgaaacc ccgaggtcac cagcccgcgc ctctgcttcc ctgggcccgc 250  
cgccgcctcc acgccctcct tctcccctgg cccggcgcct ggcaccgggg 300  
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ctcgctagtc cccgactccg ccagccctcg gcccgctgcc gtagcgccgc 450  
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ccgcgctgct ggctgcccag ctcaagtcga aaagttgctc ggaagtgcga 600  
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agatgtccct cgcaaattga agctccaggt tactcgctgct tttgtagcag 1150

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 actactgctc aaacatcatg agaggctggt tggccaacca aggggatctc 1350  
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 gctagagggg cctttcaaca ttgaatcggg catggatccc atcgatgtga 1450  
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 cagaagggtt tccagggatg tggaccccc aagcccctcc cagctggacg 1550  
 aatttctcgt tccatctctg aaagtgcctt cagtgtctgc ttcagaccac 1600  
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 ctggttactg atgtcaagga gaaactgaaa caggccaaga aattctggtc 1700  
 ctcccttccg agcaacgttt gcaacgatga gaggatggct gcaggaaacg 1750  
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 ttttaagaagt gctgactttg ttttctcatt cagttttggg aggaaaaggg 2350  
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 tttccaactg tgatctcgcc ttgtttctta caagcaaacc agggtcctt 2550  
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c 2651

<210> 24  
<211> 556  
<212> PRT  
<213> Homo Sapien

<400> 24

Met	Ala	Arg	Phe	Gly	Leu	Pro	Ala	Leu	Leu	Cys	Thr	Leu	Ala	Val
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Leu	Ser	Ala	Ala	Leu	Leu	Ala	Ala	Glu	Leu	Lys	Ser	Lys	Ser	Cys
				20					25					30

Ser	Glu	Val	Arg	Arg	Leu	Tyr	Val	Ser	Lys	Gly	Phe	Asn	Lys	Asn
				35					40					45

Asp	Ala	Pro	Leu	His	Glu	Ile	Asn	Gly	Asp	His	Leu	Lys	Ile	Cys
				50					55					60

Pro	Gln	Gly	Ser	Thr	Cys	Cys	Ser	Gln	Glu	Met	Glu	Glu	Lys	Tyr
				65					70					75

Ser	Leu	Gln	Ser	Lys	Asp	Asp	Phe	Lys	Ser	Val	Val	Ser	Glu	Gln
				80					85					90

Cys	Asn	His	Leu	Gln	Ala	Val	Phe	Ala	Ser	Arg	Tyr	Lys	Lys	Phe
				95					100					105

Asp	Glu	Phe	Phe	Lys	Glu	Leu	Leu	Glu	Asn	Ala	Glu	Lys	Ser	Leu
				110					115					120

Asn	Asp	Met	Phe	Val	Lys	Thr	Tyr	Gly	His	Leu	Tyr	Met	Gln	Asn
				125					130					135

Ser	Glu	Leu	Phe	Lys	Asp	Leu	Phe	Val	Glu	Leu	Lys	Arg	Tyr	Tyr
				140					145					150

Val	Val	Gly	Asn	Val	Asn	Leu	Glu	Glu	Met	Leu	Asn	Asp	Phe	Trp
				155					160					165

Ala	Arg	Leu	Leu	Glu	Arg	Met	Phe	Arg	Leu	Val	Asn	Ser	Gln	Tyr
				170					175					180

His	Phe	Thr	Asp	Glu	Tyr	Leu	Glu	Cys	Val	Ser	Lys	Tyr	Thr	Glu
				185					190					195

Gln	Leu	Lys	Pro	Phe	Gly	Asp	Val	Pro	Arg	Lys	Leu	Lys	Leu	Gln
				200					205					210

Val	Thr	Arg	Ala	Phe	Val	Ala	Ala	Arg	Thr	Phe	Ala	Gln	Gly	Leu
				215					220					225

Ala	Val	Ala	Gly	Asp	Val	Val	Ser	Lys	Val	Ser	Val	Val	Asn	Pro
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

230	235	240
Thr Ala Gln Cys Thr His Ala Leu Leu Lys Met Ile Tyr Cys Ser		
245	250	255
His Cys Arg Gly Leu Val Thr Val Lys Pro Cys Tyr Asn Tyr Cys		
260	265	270
Ser Asn Ile Met Arg Gly Cys Leu Ala Asn Gln Gly Asp Leu Asp		
275	280	285
Phe Glu Trp Asn Asn Phe Ile Asp Ala Met Leu Met Val Ala Glu		
290	295	300
Arg Leu Glu Gly Pro Phe Asn Ile Glu Ser Val Met Asp Pro Ile		
305	310	315
Asp Val Lys Ile Ser Asp Ala Ile Met Asn Met Gln Asp Asn Ser		
320	325	330
Val Gln Val Ser Gln Lys Val Phe Gln Gly Cys Gly Pro Pro Lys		
335	340	345
Pro Leu Pro Ala Gly Arg Ile Ser Arg Ser Ile Ser Glu Ser Ala		
350	355	360
Phe Ser Ala Arg Phe Arg Pro His His Pro Glu Glu Arg Pro Thr		
365	370	375
Thr Ala Ala Gly Thr Ser Leu Asp Arg Leu Val Thr Asp Val Lys		
380	385	390
Glu Lys Leu Lys Gln Ala Lys Lys Phe Trp Ser Ser Leu Pro Ser		
395	400	405
Asn Val Cys Asn Asp Glu Arg Met Ala Ala Gly Asn Gly Asn Glu		
410	415	420
Asp Asp Cys Trp Asn Gly Lys Gly Lys Ser Arg Tyr Leu Phe Ala		
425	430	435
Val Thr Gly Asn Gly Leu Ala Asn Gln Gly Asn Asn Pro Glu Val		
440	445	450
Gln Val Asp Thr Ser Lys Pro Asp Ile Leu Ile Leu Arg Gln Ile		
455	460	465
Met Ala Leu Arg Val Met Thr Ser Lys Met Lys Asn Ala Tyr Asn		
470	475	480
Gly Asn Asp Val Asp Phe Phe Asp Ile Ser Asp Glu Ser Ser Gly		
485	490	495
Glu Gly Ser Gly Ser Gly Cys Glu Tyr Gln Gln Cys Pro Ser Glu		
500	505	510
Phe Asp Tyr Asn Ala Thr Asp His Ala Gly Lys Ser Ala Asn Glu		

	515		520		525									
Lys	Ala	Asp	Ser	Ala	Gly	Val	Arg	Pro	Gly	Ala	Gln	Ala	Tyr	Leu
	530								535					540
Leu	Thr	Val	Phe	Cys	Ile	Leu	Phe	Leu	Val	Met	Gln	Arg	Glu	Trp
			545						550					555

Arg

<210> 25

<211> 870

<212> DNA

<213> Homo Sapien

<400> 25

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ggaaccttcc attatattct tcaagcaact tacagctgca ccgacagttg 150

cgatgaaagt tctaattctct tccctcctcc tgttgctgcc actaatgctg 200

atgtccatgg tctctagcag cctgaatcca ggggtcgcca gaggccacag 250

ggaccgaggc caggcttcta ggagatggct ccaggaaggc ggccaagaat 300

gtgagtgcaa agattgggtc ctgagagccc cgagaagaaa attcatgaca 350

gtgtctgggc tgccaaagaa gcagtgcctc tgtgatcatt tcaagggcaa 400

tgtgaagaaa acaagacacc aaaggcacca cagaaagcca aacaagcatt 450

ccagagcctg ccagcaattt ctcaaacaat gtcagctaag aagctttgct 500

ctgcctttgt aggagctctg agcgcccact cttccaatta aacattctca 550

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actctcccac tgtaccacc cctaaatcat tccagtgtc tcaaaaagca 650

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ctgaaagatt ccaggaaact gtagcttcct agctagtgtc atttaacctt 800

aatgcaatc aggaaagtag caaacagaag tcaataaata tttttaaatg 850

tcaaaaaaaaa aaaaaaaaaa 870

<210> 26

<211> 119

<212> PRT

<213> Homo Sapien



<400> 26  
Met Lys Val Leu Ile Ser Ser Leu Leu Leu Leu Leu Pro Leu Met  
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Leu Met Ser Met Val Ser Ser Ser Leu Asn Pro Gly Val Ala Arg  
20 25 30  
Gly His Arg Asp Arg Gly Gln Ala Ser Arg Arg Trp Leu Gln Glu  
35 40 45  
Gly Gly Gln Glu Cys Glu Cys Lys Asp Trp Phe Leu Arg Ala Pro  
50 55 60  
Arg Arg Lys Phe Met Thr Val Ser Gly Leu Pro Lys Lys Gln Cys  
65 70 75  
Pro Cys Asp His Phe Lys Gly Asn Val Lys Lys Thr Arg His Gln  
80 85 90  
Arg His His Arg Lys Pro Asn Lys His Ser Arg Ala Cys Gln Gln  
95 100 105  
Phe Leu Lys Gln Cys Gln Leu Arg Ser Phe Ala Leu Pro Leu  
110 115

<210> 27  
<211> 1371  
<212> DNA  
<213> Homo Sapien

<400> 27  
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gcagctgctg gtgctgcttc ttaccctgcc cctgcacctc atggctctgc 150  
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tgcagggtca cctgcctaga cccaaatccc cactttgaga agttcctgac 400  
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ctcctggaga ggacatgaga cagctggctg atggctccat ggatgtggtg 500  
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 ccaccttctt cctgagctgg gggcaccagg gagaatcaga gatgctgggg 1300  
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 taataaatag acgaaaccac g 1371

<210> 28  
 <211> 277  
 <212> PRT  
 <213> Homo Sapien

<400> 28  
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 20 25 30  
 Leu Cys Lys Ser Tyr Phe Pro Tyr Leu Met Ala Val Leu Thr Pro  
 35 40 45  
 Lys Ser Asn Arg Lys Met Glu Ser Lys Lys Arg Glu Leu Phe Ser  
 50 55 60  
 Gln Ile Lys Gly Leu Thr Gly Ala Ser Gly Lys Val Ala Leu Leu  
 65 70 75  
 Glu Leu Gly Cys Gly Thr Gly Ala Asn Phe Gln Phe Tyr Pro Pro  
 80 85 90  
 Gly Cys Arg Val Thr Cys Leu Asp Pro Asn Pro His Phe Glu Lys  
 95 100 105  
 Phe Leu Thr Lys Ser Met Ala Glu Asn Arg His Leu Gln Tyr Glu

	110		115		120
Arg Phe Val Val	Ala Pro Gly Glu Asp	Met Arg Gln Leu Ala Asp			
	125	130	135		
Gly Ser Met Asp	Val Val Val Cys Thr	Leu Val Leu Cys Ser Val			
	140	145	150		
Gln Ser Pro Arg	Lys Val Leu Gln Glu	Val Arg Arg Val Leu Arg			
	155	160	165		
Pro Gly Gly Val	Leu Phe Phe Trp Glu	His Val Ala Glu Pro Tyr			
	170	175	180		
Gly Ser Trp Ala	Phe Met Trp Gln Gln	Val Phe Glu Pro Thr Trp			
	185	190	195		
Lys His Ile Gly	Asp Gly Cys Cys Leu	Thr Arg Glu Thr Trp Lys			
	200	205	210		
Asp Leu Glu Asn	Ala Gln Phe Ser Glu	Ile Gln Met Glu Arg Gln			
	215	220	225		
Pro Pro Pro Leu	Lys Trp Leu Pro Val	Gly Pro His Ile Met Gly			
	230	235	240		
Lys Ala Val Lys	Gln Ser Phe Pro Ser	Ser Lys Ala Leu Ile Cys			
	245	250	255		
Ser Phe Pro Ser	Leu Gln Leu Glu Gln	Ala Thr His Gln Pro Ile			
	260	265	270		
Tyr Leu Pro Leu	Arg Gly Thr				
	275				

<210> 29  
 <211> 494  
 <212> DNA  
 <213> Homo Sapien

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 gactggtcgg tgcccagaaa gtctcttctg ccaactgacgc ccccatcagg 150  
 gattgggcct tctttccccc ttcctttctg tgtctcctgc ctcatcggcc 200  
 tgccatgacc tgcagccaag ccagccccg tggggaaggg gagaaagtgg 250  
 gggatggcta agaaagctgg gagatagga acagaagagg gtagtgggtg 300  
 ggctaggggg gctgccttat ttaaagtggg tgtttatgat tcttatacta 350  
 atttatacaa agatattaag gccctgttca ttaagaaatt gttcccttcc 400

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taaacagtta aaagctgaaa aaaaaaaaaa aaaaaaaaaa aaaa 494

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<211> 73  
<212> PRT  
<213> Homo Sapien

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Ala Thr Asp Ala Pro Ile Arg Asp Trp Ala Phe Phe Pro Pro Ser  
35 40 45  
Phe Leu Cys Leu Leu Pro His Arg Pro Ala Met Thr Cys Ser Gln  
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Ala Gln Pro Arg Gly Glu Gly Glu Lys Val Gly Asp Gly  
65 70

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<212> DNA  
<213> Homo Sapien

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tgtccctcaa acacctgagt gctactccct atttgcattt gttttgataa 150  
atgatgttga caccctccac cgaattctaa gtggaatcat gtcgggaaga 200  
gatacaatcc ttggcctgtg taccctcgca ttagccttgt ctttggccat 250  
gatgtttacc ttcagattca tcaccacct tctgggtcac attttcattt 300  
cattgggttat tttgggattg ttgtttgtct gcggtgtttt atggtggctg 350  
tattatgact ataccaacga cctcagcata gaattggaca cagaaaggga 400  
aaatatgaag tgcgtgctgg gggttgctat cgtatccaca ggcattcacg 450  
cagtgtgct cgtcttgatt tttgttctca gaaagagaat aaaattgaca 500  
gttgagcttt tccaaatcac aaataaagcc atcagcagtg ctcccttcct 550  
gctgttccag ccactgtgga catttgccat cctcattttc ttctgggtcc 600  
tctgggtggc tgtgctgctg agcctgggaa ctgcaggagc tgcccaggtt 650  
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gtggtcgtag catttaattg gcctcatctg gactagttaa ttcacccctg 750  
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 aaagaacagc agcatgggtgc attgtccagg tacctgttcc gatgctgcta 1000  
 ctgctgtttc tgggtgtcttg acaaatacct gctccatctc aaccagaatg 1050  
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 gatgcattca aaatcttgtc caagaactca agtcacttta catctattaa 1150  
 ctgcttttga gacttcataa tttttctagg aaaggtgtta gtggtgtgtt 1200  
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 gtgtgggcag tccctctgtt attggtagct ttttttgcct acttagtagc 1300  
 ccatagtttt ttatctgtgt ttgaaactgt gctggatgca cttttcctgt 1350  
 gttttgctgt tgatctggaa acaaatgatg gatcgtcaga aaagccctac 1400  
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 <211> 445  
 <212> PRT  
 <213> Homo Sapien

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 Leu Leu Val His Ile Phe Ile Ser Leu Val Ile Leu Gly Leu Leu  
 35 40 45  
 Phe Val Cys Gly Val Leu Trp Trp Leu Tyr Tyr Asp Tyr Thr Asn  
 50 55 60

Asp	Leu	Ser	Ile	Glu	Leu	Asp	Thr	Glu	Arg	Glu	Asn	Met	Lys	Cys	
				65					70					75	
Val	Leu	Gly	Phe	Ala	Ile	Val	Ser	Thr	Gly	Ile	Thr	Ala	Val	Leu	
				80					85					90	
Leu	Val	Leu	Ile	Phe	Val	Leu	Arg	Lys	Arg	Ile	Lys	Leu	Thr	Val	
				95					100					105	
Glu	Leu	Phe	Gln	Ile	Thr	Asn	Lys	Ala	Ile	Ser	Ser	Ala	Pro	Phe	
				110					115					120	
Leu	Leu	Phe	Gln	Pro	Leu	Trp	Thr	Phe	Ala	Ile	Leu	Ile	Phe	Phe	
				125					130					135	
Trp	Val	Leu	Trp	Val	Ala	Val	Leu	Leu	Ser	Leu	Gly	Thr	Ala	Gly	
				140					145					150	
Ala	Ala	Gln	Val	Met	Glu	Gly	Gly	Gln	Val	Glu	Tyr	Lys	Pro	Leu	
				155					160					165	
Ser	Gly	Ile	Arg	Tyr	Met	Trp	Ser	Tyr	His	Leu	Ile	Gly	Leu	Ile	
				170					175					180	
Trp	Thr	Ser	Glu	Phe	Ile	Leu	Ala	Cys	Gln	Gln	Met	Thr	Ile	Ala	
				185					190					195	
Gly	Ala	Val	Val	Thr	Cys	Tyr	Phe	Asn	Arg	Ser	Lys	Asn	Asp	Pro	
				200					205					210	
Pro	Asp	His	Pro	Ile	Leu	Ser	Ser	Leu	Ser	Ile	Leu	Phe	Phe	Tyr	
				215					220					225	
His	Gln	Gly	Thr	Val	Val	Lys	Gly	Ser	Phe	Leu	Ile	Ser	Val	Val	
				230					235					240	
Arg	Ile	Pro	Arg	Ile	Ile	Val	Met	Tyr	Met	Gln	Asn	Ala	Leu	Lys	
				245					250					255	
Glu	Gln	Gln	His	Gly	Ala	Leu	Ser	Arg	Tyr	Leu	Phe	Arg	Cys	Cys	
				260					265					270	
Tyr	Cys	Cys	Phe	Trp	Cys	Leu	Asp	Lys	Tyr	Leu	Leu	His	Leu	Asn	
				275					280					285	
Gln	Asn	Ala	Tyr	Thr	Thr	Thr	Ala	Ile	Asn	Gly	Thr	Asp	Phe	Cys	
				290					295					300	
Thr	Ser	Ala	Lys	Asp	Ala	Phe	Lys	Ile	Leu	Ser	Lys	Asn	Ser	Ser	
				305					310					315	
His	Phe	Thr	Ser	Ile	Asn	Cys	Phe	Gly	Asp	Phe	Ile	Ile	Phe	Leu	
				320					325					330	
Gly	Lys	Val	Leu	Val	Val	Cys	Phe	Thr	Val	Phe	Gly	Gly	Leu	Met	
				335					340					345	

Ala	Phe	Asn	Tyr	Asn	Arg	Ala	Phe	Gln	Val	Trp	Ala	Val	Pro	Leu	
				350					355					360	
Leu	Leu	Val	Ala	Phe	Phe	Ala	Tyr	Leu	Val	Ala	His	Ser	Phe	Leu	
				365					370					375	
Ser	Val	Phe	Glu	Thr	Val	Leu	Asp	Ala	Leu	Phe	Leu	Cys	Phe	Ala	
				380					385					390	
Val	Asp	Leu	Glu	Thr	Asn	Asp	Gly	Ser	Ser	Glu	Lys	Pro	Tyr	Phe	
				395					400					405	
Met	Asp	Gln	Glu	Phe	Leu	Ser	Phe	Val	Lys	Arg	Ser	Asn	Lys	Leu	
				410					415					420	
Asn	Asn	Ala	Arg	Ala	Gln	Gln	Asp	Lys	His	Ser	Leu	Arg	Asn	Glu	
				425					430					435	
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				440					445						

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 <211> 2773  
 <212> DNA  
 <213> Homo Sapien

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 <211> 678  
 <212> PRT  
 <213> Homo Sapien

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 Cys Asp Val Lys Ala Gly Lys Ile Ile Asp Pro Glu Phe Ile Val  
 50 55 60  
 Lys Cys Pro Ala Gly Cys Gln Asp Pro Lys Tyr His Val Tyr Gly  
 65 70 75  
 Thr Asp Val Tyr Ala Ser Tyr Ser Ser Val Cys Gly Ala Ala Val  
 80 85 90  
 His Ser Gly Val Leu Asp Asn Ser Gly Gly Lys Ile Leu Val Arg  
 95 100 105  
 Lys Val Ala Gly Gln Ser Gly Tyr Lys Gly Ser Tyr Ser Asn Gly  
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 Val Gln Ser Leu Ser Leu Pro Arg Trp Arg Glu Ser Phe Ile Val  
 125 130 135

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Thr	Tyr	Ser	Ser	Ser	Lys	Ser	Pro	Ala	Ala	Gln	Ala	Gly	Glu	Thr	155	160	165
Thr	Lys	Ala	Tyr	Gln	Arg	Pro	Pro	Ile	Pro	Gly	Thr	Thr	Ala	Gln	170	175	180
Pro	Val	Thr	Leu	Met	Gln	Leu	Leu	Ala	Val	Thr	Val	Ala	Val	Ala	185	190	195
Thr	Pro	Thr	Thr	Leu	Pro	Arg	Pro	Ser	Pro	Ser	Ala	Ala	Ser	Thr	200	205	210
Thr	Ser	Ile	Pro	Arg	Pro	Gln	Ser	Val	Gly	His	Arg	Ser	Gln	Glu	215	220	225
Met	Asp	Leu	Trp	Ser	Thr	Ala	Thr	Tyr	Thr	Ser	Ser	Gln	Asn	Arg	230	235	240
Pro	Arg	Ala	Asp	Pro	Gly	Ile	Gln	Arg	Gln	Asp	Pro	Ser	Gly	Ala	245	250	255
Ala	Phe	Gln	Lys	Pro	Val	Gly	Ala	Asp	Val	Ser	Leu	Gly	Leu	Val	260	265	270
Pro	Lys	Glu	Glu	Leu	Ser	Thr	Gln	Ser	Leu	Glu	Pro	Val	Ser	Leu	275	280	285
Gly	Asp	Pro	Asn	Cys	Lys	Ile	Asp	Leu	Ser	Phe	Leu	Ile	Asp	Gly	290	295	300
Ser	Thr	Ser	Ile	Gly	Lys	Arg	Arg	Phe	Arg	Ile	Gln	Lys	Gln	Leu	305	310	315
Leu	Ala	Asp	Val	Ala	Gln	Ala	Leu	Asp	Ile	Gly	Pro	Ala	Gly	Pro	320	325	330
Leu	Met	Gly	Val	Val	Gln	Tyr	Gly	Asp	Asn	Pro	Ala	Thr	His	Phe	335	340	345
Asn	Leu	Lys	Thr	His	Thr	Asn	Ser	Arg	Asp	Leu	Lys	Thr	Ala	Ile	350	355	360
Glu	Lys	Ile	Thr	Gln	Arg	Gly	Gly	Leu	Ser	Asn	Val	Gly	Arg	Ala	365	370	375
Ile	Ser	Phe	Val	Thr	Lys	Asn	Phe	Phe	Ser	Lys	Ala	Asn	Gly	Asn	380	385	390
Arg	Ser	Gly	Ala	Pro	Asn	Val	Val	Val	Val	Met	Val	Asp	Gly	Trp	395	400	405
Pro	Thr	Asp	Lys	Val	Glu	Glu	Ala	Ser	Arg	Leu	Ala	Arg	Glu	Ser	410	415	420

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Glu	Lys	Gln	Tyr	Val	Val	Glu	Pro	Asn	Phe	Ala	Asn	Lys	Ala	Val	
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Cys	Arg	Thr	Asn	Gly	Phe	Tyr	Ser	Leu	His	Val	Gln	Ser	Trp	Phe	
				455					460					465	
Gly	Leu	His	Lys	Thr	Leu	Gln	Pro	Leu	Val	Lys	Arg	Val	Cys	Asp	
				470					475					480	
Thr	Asp	Arg	Leu	Ala	Cys	Ser	Lys	Thr	Cys	Leu	Asn	Ser	Ala	Asp	
				485					490					495	
Ile	Gly	Phe	Val	Ile	Asp	Gly	Ser	Ser	Ser	Val	Gly	Thr	Gly	Asn	
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Phe	Arg	Thr	Val	Leu	Gln	Phe	Val	Thr	Asn	Leu	Thr	Lys	Glu	Phe	
				515					520					525	
Glu	Ile	Ser	Asp	Thr	Asp	Thr	Arg	Ile	Gly	Ala	Val	Gln	Tyr	Thr	
				530					535					540	
Tyr	Glu	Gln	Arg	Leu	Glu	Phe	Gly	Phe	Asp	Lys	Tyr	Ser	Ser	Lys	
				545					550					555	
Pro	Asp	Ile	Leu	Asn	Ala	Ile	Lys	Arg	Val	Gly	Tyr	Trp	Ser	Gly	
				560					565					570	
Gly	Thr	Ser	Thr	Gly	Ala	Ala	Ile	Asn	Phe	Ala	Leu	Glu	Gln	Leu	
				575					580					585	
Phe	Lys	Lys	Ser	Lys	Pro	Asn	Lys	Arg	Lys	Leu	Met	Ile	Leu	Ile	
				590					595					600	
Thr	Asp	Gly	Arg	Ser	Tyr	Asp	Asp	Val	Arg	Ile	Pro	Ala	Met	Ala	
				605					610					615	
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				620					625					630	
Ala	Ala	Gln	Glu	Glu	Leu	Glu	Val	Ile	Ala	Thr	His	Pro	Ala	Arg	
				635					640					645	
Asp	His	Ser	Phe	Phe	Val	Asp	Glu	Phe	Asp	Asn	Leu	His	Gln	Tyr	
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Pro Arg Asn

<210> 35  
 <211> 2095  
 <212> DNA

<213> Homo Sapien

<400> 35

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 aacaatgtag agttttatatt attgaacaat gtagtcactt gaaggttttg 1700  
 tgttatatctt atgtggatta ccaatttaaa aatatatgta gttctgtgtc 1750  
 aaaaaacttc ttactgaag ttatactgaa caaaatttta cctgtttttg 1800  
 gtcatttata aagtacttca agatgttgca gtatttcaca gttattatta 1850  
 tttaaaatta cttcaacttt gtgtttttta atgttttgac gatttcaata 1900  
 caagataaaa aggatagtga atcattcttt acatgcaaac attttccagt 1950  
 tacttaactg atcagtttat tattgatata tcactccatt aatgtaaagt 2000  
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 tactgtggta atatagagaa gaattaaagc aagaaaatct gaaaa 2095

<210> 36  
 <211> 331  
 <212> PRT  
 <213> Homo Sapien

<400> 36  
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 Arg Ser Leu Lys Trp Ser Leu Leu Leu Leu Ser Leu Leu Ser Phe  
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 Phe Val Met Trp Tyr Leu Ser Leu Pro His Tyr Asn Val Ile Glu  
 35 40 45  
 Arg Val Asn Trp Met Tyr Phe Tyr Glu Tyr Glu Pro Ile Tyr Arg  
 50 55 60  
 Gln Asp Phe His Phe Thr Leu Arg Glu His Ser Asn Cys Ser His  
 65 70 75  
 Gln Asn Pro Phe Leu Val Ile Leu Val Thr Ser His Pro Ser Asp  
 80 85 90  
 Val Lys Ala Arg Gln Ala Ile Arg Val Thr Trp Gly Glu Lys Lys  
 95 100 105

Ser Trp Trp Gly Tyr Glu Val Leu Thr Phe Phe Leu Leu Gly Gln	110	115	120
Glu Ala Glu Lys Glu Asp Lys Met Leu Ala Leu Ser Leu Glu Asp	125	130	135
Glu His Leu Leu Tyr Gly Asp Ile Ile Arg Gln Asp Phe Leu Asp	140	145	150
Thr Tyr Asn Asn Leu Thr Leu Lys Thr Ile Met Ala Phe Arg Trp	155	160	165
Val Thr Glu Phe Cys Pro Asn Ala Lys Tyr Val Met Lys Thr Asp	170	175	180
Thr Asp Val Phe Ile Asn Thr Gly Asn Leu Val Lys Tyr Leu Leu	185	190	195
Asn Leu Asn His Ser Glu Lys Phe Phe Thr Gly Tyr Pro Leu Ile	200	205	210
Asp Asn Tyr Ser Tyr Arg Gly Phe Tyr Gln Lys Thr His Ile Ser	215	220	225
Tyr Gln Glu Tyr Pro Phe Lys Val Phe Pro Pro Tyr Cys Ser Gly	230	235	240
Leu Gly Tyr Ile Met Ser Arg Asp Leu Val Pro Arg Ile Tyr Glu	245	250	255
Met Met Gly His Val Lys Pro Ile Lys Phe Glu Asp Val Tyr Val	260	265	270
Gly Ile Cys Leu Asn Leu Leu Lys Val Asn Ile His Ile Pro Glu	275	280	285
Asp Thr Asn Leu Phe Phe Leu Tyr Arg Ile His Leu Asp Val Cys	290	295	300
Gln Leu Arg Arg Val Ile Ala Ala His Gly Phe Ser Ser Lys Glu	305	310	315
Ile Ile Thr Phe Trp Gln Val Met Leu Arg Asn Thr Thr Cys His	320	325	330

Tyr

<210> 37

<211> 2846

<212> DNA

<213> Homo Sapien

<400> 37

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tggggctcac ttttcttcag ctcttctca tctcgtcctt gccaaagag 100

tacacagtca ttaatgaagc ctgccctgga gcagagtgga atatcatgtg 150  
 tcgggagtg c tgtgaatatg atcagattga gtgcgtctgc cccggaaaga 200  
 ggggaagtcgt ggggttatacc atcccttgct gcaggaatga ggagaatgag 250  
 tgtgactcct gcctgatcca cccaggttgt accatctttg aaaactgcaa 300  
 gagctgccga aatggctcat gggggggtac cttggatgac ttctatgtga 350  
 aggggttcta ctgtgcagag tgccgagcag gctggtacgg aggagactgc 400  
 atgcgatgtg gccaggttct gcgagcccca aagggtcaga ttttgttgga 450  
 aagctatccc ctaaagtctc actgtgaatg gaccattcat gctaaacctg 500  
 ggtttgtcat ccaactaaga tttgtcatgt tgagtctgga gtttgactac 550  
 atgtgccagt atgactatgt tgaggttcgt gatggagaca accgcgatgg 600  
 ccagatcatc aagcgtgtct gtggcaacga gcggccagct cctatccaga 650  
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 cccttgtttc catgacggca cgtgcgtcct tgacaaggct ggatcttaca 800  
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 gaagaaagaa actgctcaga ccctgggggc ccagtcaatg ggtaccagaa 900  
 aataacaggg ggccctgggc ttatcaacgg acgcatgct aaaattggca 950  
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 cataaaagcc tgccgagaac caaagatttc agacctggtg agaaggagag 1100  
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 catgacggca gcctacacaa gggagcgtgg ttcttagtct gcagcgggtg 1500  
 cctggtgaat gagcgcactg tggtgggtgg tgccactgt gttactgacc 1550

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 cgagcatctc ctgagccacg ctggcatctg atgggactgg tcagctggag 2100  
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<210> 38  
 <211> 720  
 <212> PRT  
 <213> Homo Sapien



<400> 38

Met	Glu	Leu	Gly	Cys	Trp	Thr	Gln	Leu	Gly	Leu	Thr	Phe	Leu	Gln	1	5	10	15
Leu	Leu	Leu	Ile	Ser	Ser	Leu	Pro	Arg	Glu	Tyr	Thr	Val	Ile	Asn	20	25	30	
Glu	Ala	Cys	Pro	Gly	Ala	Glu	Trp	Asn	Ile	Met	Cys	Arg	Glu	Cys	35	40	45	
Cys	Glu	Tyr	Asp	Gln	Ile	Glu	Cys	Val	Cys	Pro	Gly	Lys	Arg	Glu	50	55	60	
Val	Val	Gly	Tyr	Thr	Ile	Pro	Cys	Cys	Arg	Asn	Glu	Glu	Asn	Glu	65	70	75	
Cys	Asp	Ser	Cys	Leu	Ile	His	Pro	Gly	Cys	Thr	Ile	Phe	Glu	Asn	80	85	90	
Cys	Lys	Ser	Cys	Arg	Asn	Gly	Ser	Trp	Gly	Gly	Thr	Leu	Asp	Asp	95	100	105	
Phe	Tyr	Val	Lys	Gly	Phe	Tyr	Cys	Ala	Glu	Cys	Arg	Ala	Gly	Trp	110	115	120	
Tyr	Gly	Gly	Asp	Cys	Met	Arg	Cys	Gly	Gln	Val	Leu	Arg	Ala	Pro	125	130	135	
Lys	Gly	Gln	Ile	Leu	Leu	Glu	Ser	Tyr	Pro	Leu	Asn	Ala	His	Cys	140	145	150	
Glu	Trp	Thr	Ile	His	Ala	Lys	Pro	Gly	Phe	Val	Ile	Gln	Leu	Arg	155	160	165	
Phe	Val	Met	Leu	Ser	Leu	Glu	Phe	Asp	Tyr	Met	Cys	Gln	Tyr	Asp	170	175	180	
Tyr	Val	Glu	Val	Arg	Asp	Gly	Asp	Asn	Arg	Asp	Gly	Gln	Ile	Ile	185	190	195	
Lys	Arg	Val	Cys	Gly	Asn	Glu	Arg	Pro	Ala	Pro	Ile	Gln	Ser	Ile	200	205	210	
Gly	Ser	Ser	Leu	His	Val	Leu	Phe	His	Ser	Asp	Gly	Ser	Lys	Asn	215	220	225	
Phe	Asp	Gly	Phe	His	Ala	Ile	Tyr	Glu	Glu	Ile	Thr	Ala	Cys	Ser	230	235	240	
Ser	Ser	Pro	Cys	Phe	His	Asp	Gly	Thr	Cys	Val	Leu	Asp	Lys	Ala	245	250	255	
Gly	Ser	Tyr	Lys	Cys	Ala	Cys	Leu	Ala	Gly	Tyr	Thr	Gly	Gln	Arg	260	265	270	
Cys	Glu	Asn	Leu	Leu	Glu	Glu	Arg	Asn	Cys	Ser	Asp	Pro	Gly	Gly	275	280	285	

Pro Val Asn Gly Tyr Gln Lys Ile Thr Gly Gly Pro Gly Leu Ile	290	295	300
Asn Gly Arg His Ala Lys Ile Gly Thr Val Val Ser Phe Phe Cys	305	310	315
Asn Asn Ser Tyr Val Leu Ser Gly Asn Glu Lys Arg Thr Cys Gln	320	325	330
Gln Asn Gly Glu Trp Ser Gly Lys Gln Pro Ile Cys Ile Lys Ala	335	340	345
Cys Arg Glu Pro Lys Ile Ser Asp Leu Val Arg Arg Arg Val Leu	350	355	360
Pro Met Gln Val Gln Ser Arg Glu Thr Pro Leu His Gln Leu Tyr	365	370	375
Ser Ala Ala Phe Ser Lys Gln Lys Leu Gln Ser Ala Pro Thr Lys	380	385	390
Lys Pro Ala Leu Pro Phe Gly Asp Leu Pro Met Gly Tyr Gln His	395	400	405
Leu His Thr Gln Leu Gln Tyr Glu Cys Ile Ser Pro Phe Tyr Arg	410	415	420
Arg Leu Gly Ser Ser Arg Arg Thr Cys Leu Arg Thr Gly Lys Trp	425	430	435
Ser Gly Arg Ala Pro Ser Cys Ile Pro Ile Cys Gly Lys Ile Glu	440	445	450
Asn Ile Thr Ala Pro Lys Thr Gln Gly Leu Arg Trp Pro Trp Gln	455	460	465
Ala Ala Ile Tyr Arg Arg Thr Ser Gly Val His Asp Gly Ser Leu	470	475	480
His Lys Gly Ala Trp Phe Leu Val Cys Ser Gly Ala Leu Val Asn	485	490	495
Glu Arg Thr Val Val Val Ala Ala His Cys Val Thr Asp Leu Gly	500	505	510
Lys Val Thr Met Ile Lys Thr Ala Asp Leu Lys Val Val Leu Gly	515	520	525
Lys Phe Tyr Arg Asp Asp Asp Arg Asp Glu Lys Thr Ile Gln Ser	530	535	540
Leu Gln Ile Ser Ala Ile Ile Leu His Pro Asn Tyr Asp Pro Ile	545	550	555
Leu Leu Asp Ala Asp Ile Ala Ile Leu Lys Leu Leu Asp Lys Ala	560	565	570

Arg	Ile	Ser	Thr	Arg	Val	Gln	Pro	Ile	Cys	Leu	Ala	Ala	Ser	Arg	575	580	585
Asp	Leu	Ser	Thr	Ser	Phe	Gln	Glu	Ser	His	Ile	Thr	Val	Ala	Gly	590	595	600
Trp	Asn	Val	Leu	Ala	Asp	Val	Arg	Ser	Pro	Gly	Phe	Lys	Asn	Asp	605	610	615
Thr	Leu	Arg	Ser	Gly	Val	Val	Ser	Val	Val	Asp	Ser	Leu	Leu	Cys	620	625	630
Glu	Glu	Gln	His	Glu	Asp	His	Gly	Ile	Pro	Val	Ser	Val	Thr	Asp	635	640	645
Asn	Met	Phe	Cys	Ala	Ser	Trp	Glu	Pro	Thr	Ala	Pro	Ser	Asp	Ile	650	655	660
Cys	Thr	Ala	Glu	Thr	Gly	Gly	Ile	Ala	Ala	Val	Ser	Phe	Pro	Gly	665	670	675
Arg	Ala	Ser	Pro	Glu	Pro	Arg	Trp	His	Leu	Met	Gly	Leu	Val	Ser	680	685	690
Trp	Ser	Tyr	Asp	Lys	Thr	Cys	Ser	His	Arg	Leu	Ser	Thr	Ala	Phe	695	700	705
Thr	Lys	Val	Leu	Pro	Phe	Lys	Asp	Trp	Ile	Glu	Arg	Asn	Met	Lys	710	715	720

<210> 39  
 <211> 2571  
 <212> DNA  
 <213> Homo Sapien

<400> 39  
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 ttgtgatcta ctgattgtgg gggcatggca aggtttgctt aaaggagctt 150  
 ggctgggttg ggcccttgta gctgacagaa ggtggccagg gagaatgcag 200  
 cacactgctc ggagaatgaa ggcgcttctg ttgctggctc tgccttggtc 250  
 cagtctgct aactacattg acaatgtggg caacctgcac ttcctgtatt 300  
 cagaactctg taaaggtgcc tccactacg gcctgaccaa agataggaag 350  
 aggcgctcac aagatggctg tccagacggc tgtgagagcc tcacagccac 400  
 ggctccctcc ccagaggttt ctgcagctgc caccatctcc ttaatgacag 450  
 acgagcctgg cctagacaac cctgcctacg tgcctcggc agaggacggg 500  
 cagccagcaa tcagcccagt ggactctggc cggagcaacc gaactagggc 550

acggcccttt gagagatcca ctattagaag cagatcattt aaaaaataa 600  
 atcgagcttt gagtgttctt cgaaggacaa agagcgggag tgcagttgcc 650  
 aaccatgccg accagggcag ggaaaattct gaaaacacca ctgcccctga 700  
 agtctttcca aggttgtagc acctgattcc agatggtgaa attaccagca 750  
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 ggaggtagcg aaacccact ggtccatctc attatccaac acatttatcg 850  
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 agaatgaccg tgtgttagcc atcaatggac atgatcttcg atatggcagc 1250  
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 cgtcgtgtcc cgccagggtc ggcagcggag ccctgacatc tttcaggaag 1350  
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caccagcata caatgatgga agaattagat gtggtgatat tcttcttgct 2000  
gtcaatggta gaagtacatc aggaatgata catgcttgct tggcaagact 2050  
gctgaaagaa cttaaaggaa gaattactct aactattggt tcttggcctg 2100  
gcactttttt atagaatcaa tgatgggtca gaggaaaaca gaaaaatcac 2150  
aaataggcta agaagttgaa acactatatt tatcttggtca gtttttatat 2200  
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ctagtttttt ttcagtgtgg aggatttctc attactctac aacattgttt 2350  
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tgtatacccc actgaattca agctgattta aatttaaaat ttggtatatg 2450  
ctgaagtctg ccaagggtac attatggcca tttttaattt acagctaaaa 2500  
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<210> 40

<211> 632

<212> PRT

<213> Homo Sapien

<400> 40

Met	Lys	Ala	Leu	Leu	Leu	Leu	Val	Leu	Pro	Trp	Leu	Ser	Pro	Ala
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Asn	Tyr	Ile	Asp	Asn	Val	Gly	Asn	Leu	His	Phe	Leu	Tyr	Ser	Glu
			20					25						30
Leu	Cys	Lys	Gly	Ala	Ser	His	Tyr	Gly	Leu	Thr	Lys	Asp	Arg	Lys
			35					40						45
Arg	Arg	Ser	Gln	Asp	Gly	Cys	Pro	Asp	Gly	Cys	Ala	Ser	Leu	Thr
			50					55						60
Ala	Thr	Ala	Pro	Ser	Pro	Glu	Val	Ser	Ala	Ala	Ala	Thr	Ile	Ser
			65					70						75
Leu	Met	Thr	Asp	Glu	Pro	Gly	Leu	Asp	Asn	Pro	Ala	Tyr	Val	Ser
			80					85						90
Ser	Ala	Glu	Asp	Gly	Gln	Pro	Ala	Ile	Ser	Pro	Val	Asp	Ser	Gly
			95					100						105
Arg	Ser	Asn	Arg	Thr	Arg	Ala	Arg	Pro	Phe	Glu	Arg	Ser	Thr	Ile
			110					115						120
Arg	Ser	Arg	Ser	Phe	Lys	Lys	Ile	Asn	Arg	Ala	Leu	Ser	Val	Leu

				125					130					135
Arg	Arg	Thr	Lys	Ser	Gly	Ser	Ala	Val	Ala	Asn	His	Ala	Asp	Gln
				140					145					150
Gly	Arg	Glu	Asn	Ser	Glu	Asn	Thr	Thr	Ala	Pro	Glu	Val	Phe	Pro
				155					160					165
Arg	Leu	Tyr	His	Leu	Ile	Pro	Asp	Gly	Glu	Ile	Thr	Ser	Ile	Lys
				170					175					180
Ile	Asn	Arg	Val	Asp	Pro	Ser	Glu	Ser	Leu	Ser	Ile	Arg	Leu	Val
				185					190					195
Gly	Gly	Ser	Glu	Thr	Pro	Leu	Val	His	Ile	Ile	Ile	Gln	His	Ile
				200					205					210
Tyr	Arg	Asp	Gly	Val	Ile	Ala	Arg	Asp	Gly	Arg	Leu	Leu	Pro	Gly
				215					220					225
Asp	Ile	Ile	Leu	Lys	Val	Asn	Gly	Met	Asp	Ile	Ser	Asn	Val	Pro
				230					235					240
His	Asn	Tyr	Ala	Val	Arg	Leu	Leu	Arg	Gln	Pro	Cys	Gln	Val	Leu
				245					250					255
Trp	Leu	Thr	Val	Met	Arg	Glu	Gln	Lys	Phe	Arg	Ser	Arg	Asn	Asn
				260					265					270
Gly	Gln	Ala	Pro	Asp	Ala	Tyr	Arg	Pro	Arg	Asp	Asp	Ser	Phe	His
				275					280					285
Val	Ile	Leu	Asn	Lys	Ser	Ser	Pro	Glu	Glu	Gln	Leu	Gly	Ile	Lys
				290					295					300
Leu	Val	Arg	Lys	Val	Asp	Glu	Pro	Gly	Val	Phe	Ile	Phe	Asn	Val
				305					310					315
Leu	Asp	Gly	Gly	Val	Ala	Tyr	Arg	His	Gly	Gln	Leu	Glu	Glu	Asn
				320					325					330
Asp	Arg	Val	Leu	Ala	Ile	Asn	Gly	His	Asp	Leu	Arg	Tyr	Gly	Ser
				335					340					345
Pro	Glu	Ser	Ala	Ala	His	Leu	Ile	Gln	Ala	Ser	Glu	Arg	Arg	Val
				350					355					360
His	Leu	Val	Val	Ser	Arg	Gln	Val	Arg	Gln	Arg	Ser	Pro	Asp	Ile
				365					370					375
Phe	Gln	Glu	Ala	Gly	Trp	Asn	Ser	Asn	Gly	Ser	Trp	Ser	Pro	Gly
				380					385					390
Pro	Gly	Glu	Arg	Ser	Asn	Thr	Pro	Lys	Pro	Leu	His	Pro	Thr	Ile
				395					400					405
Thr	Cys	His	Glu	Lys	Val	Val	Asn	Ile	Gln	Lys	Asp	Pro	Gly	Glu

410					415					420				
Ser	Leu	Gly	Met	Thr	Val	Ala	Gly	Gly	Ala	Ser	His	Arg	Glu	Trp
				425					430					435
Asp	Leu	Pro	Ile	Tyr	Val	Ile	Ser	Val	Glu	Pro	Gly	Gly	Val	Ile
				440					445					450
Ser	Arg	Asp	Gly	Arg	Ile	Lys	Thr	Gly	Asp	Ile	Leu	Leu	Asn	Val
				455					460					465
Asp	Gly	Val	Glu	Leu	Thr	Glu	Val	Ser	Arg	Ser	Glu	Ala	Val	Ala
				470					475					480
Leu	Leu	Lys	Arg	Thr	Ser	Ser	Ser	Ile	Val	Leu	Lys	Ala	Leu	Glu
				485					490					495
Val	Lys	Glu	Tyr	Glu	Pro	Gln	Glu	Asp	Cys	Ser	Ser	Pro	Ala	Ala
				500					505					510
Leu	Asp	Ser	Asn	His	Asn	Met	Ala	Pro	Pro	Ser	Asp	Trp	Ser	Pro
				515					520					525
Ser	Trp	Val	Met	Trp	Leu	Glu	Leu	Pro	Arg	Cys	Leu	Tyr	Asn	Cys
				530					535					540
Lys	Asp	Ile	Val	Leu	Arg	Arg	Asn	Thr	Ala	Gly	Ser	Leu	Gly	Phe
				545					550					555
Cys	Ile	Val	Gly	Gly	Tyr	Glu	Glu	Tyr	Asn	Gly	Asn	Lys	Pro	Phe
				560					565					570
Phe	Ile	Lys	Ser	Ile	Val	Glu	Gly	Thr	Pro	Ala	Tyr	Asn	Asp	Gly
				575					580					585
Arg	Ile	Arg	Cys	Gly	Asp	Ile	Leu	Leu	Ala	Val	Asn	Gly	Arg	Ser
				590					595					600
Thr	Ser	Gly	Met	Ile	His	Ala	Cys	Leu	Ala	Arg	Leu	Leu	Lys	Glu
				605					610					615
Leu	Lys	Gly	Arg	Ile	Thr	Leu	Thr	Ile	Val	Ser	Trp	Pro	Gly	Thr
				620					625					630

Phe Leu

<210> 41  
 <211> 1964  
 <212> DNA  
 <213> Homo Sapien

<400> 41  
 accaggcatt gtatcttcag ttgtcatcaa gttcgcaatc agattggaaa 50  
 agctcaactt gaagctttct tgctgcagc gaagcagaga gatagatatt 100

attcacgtaa taaaaaacat gggcttcaac ctgactttcc acctttccta 150  
 caaattccga ttactgttgc tgttgacttt gtgcctgaca gtggttgggt 200  
 gggccaccag taactacttc gtgggtgcca ttcaagagat tcctaaagca 250  
 aaggagtcca tggctaattt ccataagacc ctcatTTtgg ggaagggaaa 300  
 aactctgact aatgaagcat ccacgaagaa ggtagaactt gacaactgtc 350  
 cttctgtgtc tccttacctc agaggccaga gcaagctcat tttcaaacca 400  
 gatctcactt tggaagaggt acaggcagaa aatcccaaag tgtccagagg 450  
 ccggtatcgc cctcaggaat gtaaagcttt acagaggggc gccatcctcg 500  
 ttccccaccg gaacagagag aaacacctga tgtacctgct ggaacatctg 550  
 catcccttcc tgcagaggca gcagctggat tatggcatct acgtcatcca 600  
 ccaggctgaa ggtaaaaagt ttaatcgagc caaactcttg aatgtgggct 650  
 atctagaagc cctcaaggaa gaaaattggg actgctttat attccacgat 700  
 gtggacctgg tacccgagaa tgactttaac ctttacaagt gtgaggagca 750  
 tcccaagcat ctggtgggtg gcaggaacag cactgggtac aggttacgtt 800  
 acagtggata ttttgggggt gttactgccc taagcagaga gcagtTTTTc 850  
 aagggtgaatg gattctctaa caactactgg ggatggggag gcgaagacga 900  
 tgacctcaga ctcagggttg agctccaaag aatgaaaatt tcccggcccc 950  
 tgcttgaagt gggtaaatat acaatggtct tccacactag agacaaaggc 1000  
 aatgaggtga acgcagaacg gatgaagctc ttacaccaag tgtcacgagt 1050  
 ctggagaaca gatgggttga gtagttgttc ttataaatta gtatctgtgg 1100  
 aacacaatcc tttatatatc aacatcacag tggatttctg gtttgggtgca 1150  
 tgacctgga tcttttgggt atgtttggaa gaactgattc tttgtttgca 1200  
 ataattttgg cctagagact tcaaatagta gcacacatta agaacctgtt 1250  
 acagctcatt gttgagctga atttttcctt tttgtatttt cttagcagag 1300  
 ctctgggtga tgtagagtat aaaacagttg taacaagaca gctttcttag 1350  
 tcattttgat catgaggggt aaatattgta atatggatac ttgaaggact 1400  
 ttatataaaa ggatgactca aaggataaaa tgaacgctat ttgaggactc 1450  
 tgggtgaagg agatttattt aaatttgaag taatatatta tgggataaaa 1500  
 ggccacagga aataagactg ctgaatgtct gagagaacca gagttgttct 1550



cgtccaaggt agaaaggtac gaagatacaa tactgttatt catttatacct 1600  
 gtacaatcat ctgtgaagtg gtggtgtcag gtgagaaggc gtccacaaaa 1650  
 gaggggagaa aaggcgacga atcaggacac agtgaacttg ggaatgaaga 1700  
 ggtagcagga ggggtggagtg tcggctgcaa aggcagcagt agctgagctg 1750  
 gttgcagggtg ctgatagcct tcaggggagg acctgcccag gtatgccttc 1800  
 cagtgatgcc caccagagaa tacattctct attagttttt aaagagtttt 1850  
 tgtaaaatga ttttgtacaa gtaggatatg aattagcagt ttacaagttt 1900  
 acatatatac taataataaa tatgtctatc aaatacctct gtagtaaaat 1950  
 gtgaaaaagc aaaa 1964

<210> 42  
 <211> 344  
 <212> PRT  
 <213> Homo Sapien

<400> 42  
 Met Gly Phe Asn Leu Thr Phe His Leu Ser Tyr Lys Phe Arg Leu  
 1 5 10 15  
 Leu Leu Leu Leu Thr Leu Cys Leu Thr Val Val Gly Trp Ala Thr  
 20 25 30  
 Ser Asn Tyr Phe Val Gly Ala Ile Gln Glu Ile Pro Lys Ala Lys  
 35 40 45  
 Glu Phe Met Ala Asn Phe His Lys Thr Leu Ile Leu Gly Lys Gly  
 50 55 60  
 Lys Thr Leu Thr Asn Glu Ala Ser Thr Lys Lys Val Glu Leu Asp  
 65 70 75  
 Asn Cys Pro Ser Val Ser Pro Tyr Leu Arg Gly Gln Ser Lys Leu  
 80 85 90  
 Ile Phe Lys Pro Asp Leu Thr Leu Glu Glu Val Gln Ala Glu Asn  
 95 100 105  
 Pro Lys Val Ser Arg Gly Arg Tyr Arg Pro Gln Glu Cys Lys Ala  
 110 115 120  
 Leu Gln Arg Val Ala Ile Leu Val Pro His Arg Asn Arg Glu Lys  
 125 130 135  
 His Leu Met Tyr Leu Leu Glu His Leu His Pro Phe Leu Gln Arg  
 140 145 150  
 Gln Gln Leu Asp Tyr Gly Ile Tyr Val Ile His Gln Ala Glu Gly  
 155 160 165

Lys	Lys	Phe	Asn	Arg	Ala	Lys	Leu	Leu	Asn	Val	Gly	Tyr	Leu	Glu	170	175	180
Ala	Leu	Lys	Glu	Glu	Asn	Trp	Asp	Cys	Phe	Ile	Phe	His	Asp	Val	185	190	195
Asp	Leu	Val	Pro	Glu	Asn	Asp	Phe	Asn	Leu	Tyr	Lys	Cys	Glu	Glu	200	205	210
His	Pro	Lys	His	Leu	Val	Val	Gly	Arg	Asn	Ser	Thr	Gly	Tyr	Arg	215	220	225
Leu	Arg	Tyr	Ser	Gly	Tyr	Phe	Gly	Gly	Val	Thr	Ala	Leu	Ser	Arg	230	235	240
Glu	Gln	Phe	Phe	Lys	Val	Asn	Gly	Phe	Ser	Asn	Asn	Tyr	Trp	Gly	245	250	255
Trp	Gly	Gly	Glu	Asp	Asp	Asp	Leu	Arg	Leu	Arg	Val	Glu	Leu	Gln	260	265	270
Arg	Met	Lys	Ile	Ser	Arg	Pro	Leu	Pro	Glu	Val	Gly	Lys	Tyr	Thr	275	280	285
Met	Val	Phe	His	Thr	Arg	Asp	Lys	Gly	Asn	Glu	Val	Asn	Ala	Glu	290	295	300
Arg	Met	Lys	Leu	Leu	His	Gln	Val	Ser	Arg	Val	Trp	Arg	Thr	Asp	305	310	315
Gly	Leu	Ser	Ser	Cys	Ser	Tyr	Lys	Leu	Val	Ser	Val	Glu	His	Asn	320	325	330
Pro	Leu	Tyr	Ile	Asn	Ile	Thr	Val	Asp	Phe	Trp	Phe	Gly	Ala		335	340	

<210> 43  
 <211> 485  
 <212> DNA  
 <213> Homo Sapien

<400> 43  
 gctcaagacc cagcagtggg acagccagac agacggcacg atggcactga 50  
 gctcccagat ctgggccgct tgctctctgc tctctctcct cctcgccagc 100  
 ctgaccagtg gctctgtttt cccacaacag acgggacaac ttgcagagct 150  
 gcaacccag gacagagctg gagccagggc cagctggatg cccatgttcc 200  
 agaggcgaag gaggcgagac acccacttcc ccattctgcat tttctgctgc 250  
 ggctgctgtc atcgatcaaa gtgtgggatg tgctgcaaga cgtagaacct 300  
 acctgccctg cccccgtccc ctcccttctt tatttattcc tgctgcccc 350  
 gaacataggt cttggaataa aatggctggg tcttttgttt tccccaaaaa 400

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 450

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 485

<210> 44

<211> 84

<212> PRT

<213> Homo Sapien

<400> 44

Met Ala Leu Ser Ser Gln Ile Trp Ala Ala Cys Leu Leu Leu Leu  
1 5 10 15

Leu Leu Leu Ala Ser Leu Thr Ser Gly Ser Val Phe Pro Gln Gln  
20 25 30

Thr Gly Gln Leu Ala Glu Leu Gln Pro Gln Asp Arg Ala Gly Ala  
35 40 45

Arg Ala Ser Trp Met Pro Met Phe Gln Arg Arg Arg Arg Arg Asp  
50 55 60

Thr His Phe Pro Ile Cys Ile Phe Cys Cys Gly Cys Cys His Arg  
65 70 75

Ser Lys Cys Gly Met Cys Cys Lys Thr  
80

<210> 45

<211> 1076

<212> DNA

<213> Homo Sapien

<400> 45

gtggcttcat ttcagtggct gacttccaga gagcaatatg gctgggtccc 50

caacatgcct caccctcatc tatatccttt ggcagctcac agggtcagca 100

gcctctggac ccgtgaaaga gctggtcggt tccgttggtg gggccgtgac 150

tttccccctg aagtccaaag taaagcaagt tgactctatt gtctggacct 200

tcaacacaac ccctcttgtc accatacagc cagaaggggg cactatcata 250

gtgacccaaa atcgtaatag ggagagagta gacttcccag atggaggcta 300

ctccctgaag ctgagcaaac tgaagaagaa tgactcaggg atctactatg 350

tggggatata cagctcatca ctccagcagc cctccacca ggagtacgtg 400

ctgcatgtct acgagcacct gtcaaagcct aaagtcacca tgggtctgca 450

gagcaataag aatggcacct gtgtgaccaa tctgacatgc tgcattgaac 500

atggggaaga ggatgtgatt tatacctgga aggcctggg gcaagcagcc 550

aatgagtccc ataatgggtc catcctcccc atctcctgga gatggggaga 600  
 aagtgatatg accttcatct gcgttgccag gaaccctgtc agcagaaact 650  
 tctcaagccc catccttgcc aggaagctct gtgaagggtgc tgctgatgac 700  
 ccagattcct ccatggctct cctgtgtctc ctggttggtgc cctcctgct 750  
 cagtctcttt gtactggggc tatttctttg gtttctgaag agagagagac 800  
 aagaagagta cattgaagag aagaagagag tggacatttg tcgggaaact 850  
 cctaacatat gccccattc tggagagaac acagagtacg acacaatccc 900  
 tcacactaat agaacaatcc taaaggaaga tccagcaaact acggtttact 950  
 ccactgtgga aataccgaaa aagatggaaa atccccactc actgctcacg 1000  
 atgccagaca caccaaggct attgcctat gagaatgtta tctagacagc 1050  
 agtgcactcc cctaagtctc tgctca 1076

<210> 46  
 <211> 335  
 <212> PRT  
 <213> Homo Sapien

<400> 46  
 Met Ala Gly Ser Pro Thr Cys Leu Thr Leu Ile Tyr Ile Leu Trp  
 1 5 10 15  
 Gln Leu Thr Gly Ser Ala Ala Ser Gly Pro Val Lys Glu Leu Val  
 20 25 30  
 Gly Ser Val Gly Gly Ala Val Thr Phe Pro Leu Lys Ser Lys Val  
 35 40 45  
 Lys Gln Val Asp Ser Ile Val Trp Thr Phe Asn Thr Thr Pro Leu  
 50 55 60  
 Val Thr Ile Gln Pro Glu Gly Gly Thr Ile Ile Val Thr Gln Asn  
 65 70 75  
 Arg Asn Arg Glu Arg Val Asp Phe Pro Asp Gly Gly Tyr Ser Leu  
 80 85 90  
 Lys Leu Ser Lys Leu Lys Lys Asn Asp Ser Gly Ile Tyr Tyr Val  
 95 100 105  
 Gly Ile Tyr Ser Ser Ser Leu Gln Gln Pro Ser Thr Gln Glu Tyr  
 110 115 120  
 Val Leu His Val Tyr Glu His Leu Ser Lys Pro Lys Val Thr Met  
 125 130 135  
 Gly Leu Gln Ser Asn Lys Asn Gly Thr Cys Val Thr Asn Leu Thr  
 140 145 150

Cys Cys Met Glu His Gly Glu Glu Asp Val Ile Tyr Thr Trp Lys	155	160	165
Ala Leu Gly Gln Ala Ala Asn Glu Ser His Asn Gly Ser Ile Leu	170	175	180
Pro Ile Ser Trp Arg Trp Gly Glu Ser Asp Met Thr Phe Ile Cys	185	190	195
Val Ala Arg Asn Pro Val Ser Arg Asn Phe Ser Ser Pro Ile Leu	200	205	210
Ala Arg Lys Leu Cys Glu Gly Ala Ala Asp Asp Pro Asp Ser Ser	215	220	225
Met Val Leu Leu Cys Leu Leu Leu Val Pro Leu Leu Leu Ser Leu	230	235	240
Phe Val Leu Gly Leu Phe Leu Trp Phe Leu Lys Arg Glu Arg Gln	245	250	255
Glu Glu Tyr Ile Glu Glu Lys Lys Arg Val Asp Ile Cys Arg Glu	260	265	270
Thr Pro Asn Ile Cys Pro His Ser Gly Glu Asn Thr Glu Tyr Asp	275	280	285
Thr Ile Pro His Thr Asn Arg Thr Ile Leu Lys Glu Asp Pro Ala	290	295	300
Asn Thr Val Tyr Ser Thr Val Glu Ile Pro Lys Lys Met Glu Asn	305	310	315
Pro His Ser Leu Leu Thr Met Pro Asp Thr Pro Arg Leu Phe Ala	320	325	330
Tyr Glu Asn Val Ile	335		

<210> 47

<211> 766

<212> DNA

<213> Homo Sapien

<400> 47

ggctcgagcg tttctgagcc aggggtgacc atgacctgct gcgaaggatg 50

gacatcctgc aatggattca gcctgctggt tctactgctg ttaggagtag 100

ttctcaatgc gatacctcta attgtcagct tagttgagga agaccaattt 150

tctcaaaacc ccattctcttg ctttgagtgg tggttcccag gaattatagg 200

agcaggtctg atggccattc cagcaacaac aatgtccttg acagcaagaa 250

aaagagcgtg ctgcaacaac agaactggaa tgtttctttc atcatttttc 300

agtgtgatca cagtcattgg tgctctgtat tgcattgctga tatccatcca 350  
 ggctctctta aaaggctctc tcatgtgtaa ttctccaagc aacagtaatg 400  
 ccaattgtga attttcattg aaaaacatca gtgacattca tccagaatcc 450  
 ttcaacttgc agtgggtttt caatgactct tgtgcacctc ctactgggtt 500  
 caataaaccc accagtaacg acaccatggc gagtggctgg agagcatcta 550  
 gtttccactt cgattctgaa gaaaacaaac ataggcttat ccacttctca 600  
 gtatttttag gtctattgct tgttggaatt ctggagggtcc tgtttgggct 650  
 cagtcagata gtcacgggtt tccttggctg tctgtgtgga gtctctaagc 700  
 gaagaagtca aattgtgtag tttaatggga ataaaatgta agtatcagta 750  
 gtttgaaaaa aaaaaa 766

<210> 48  
 <211> 229  
 <212> PRT  
 <213> Homo Sapien

<400> 48  
 Met Thr Cys Cys Glu Gly Trp Thr Ser Cys Asn Gly Phe Ser Leu  
 1 5 10 15  
 Leu Val Leu Leu Leu Leu Gly Val Val Leu Asn Ala Ile Pro Leu  
 20 25 30  
 Ile Val Ser Leu Val Glu Glu Asp Gln Phe Ser Gln Asn Pro Ile  
 35 40 45  
 Ser Cys Phe Glu Trp Trp Phe Pro Gly Ile Ile Gly Ala Gly Leu  
 50 55 60  
 Met Ala Ile Pro Ala Thr Thr Met Ser Leu Thr Ala Arg Lys Arg  
 65 70 75  
 Ala Cys Cys Asn Asn Arg Thr Gly Met Phe Leu Ser Ser Phe Phe  
 80 85 90  
 Ser Val Ile Thr Val Ile Gly Ala Leu Tyr Cys Met Leu Ile Ser  
 95 100 105  
 Ile Gln Ala Leu Leu Lys Gly Pro Leu Met Cys Asn Ser Pro Ser  
 110 115 120  
 Asn Ser Asn Ala Asn Cys Glu Phe Ser Leu Lys Asn Ile Ser Asp  
 125 130 135  
 Ile His Pro Glu Ser Phe Asn Leu Gln Trp Phe Phe Asn Asp Ser  
 140 145 150  
 Cys Ala Pro Pro Thr Gly Phe Asn Lys Pro Thr Ser Asn Asp Thr

	155		160		165									
Met	Ala	Ser	Gly	Trp	Arg	Ala	Ser	Ser	Phe	His	Phe	Asp	Ser	Glu
			170						175					180
Glu	Asn	Lys	His	Arg	Leu	Ile	His	Phe	Ser	Val	Phe	Leu	Gly	Leu
			185						190					195
Leu	Leu	Val	Gly	Ile	Leu	Glu	Val	Leu	Phe	Gly	Leu	Ser	Gln	Ile
			200						205					210
Val	Ile	Gly	Phe	Leu	Gly	Cys	Leu	Cys	Gly	Val	Ser	Lys	Arg	Arg
			215						220					225

Ser Gln Ile Val

<210> 49  
 <211> 636  
 <212> DNA  
 <213> Homo Sapien

<400> 49  
 atccgttctc tgcgctgccca gctcaggtga gccctcgcca aggtgacctc 50  
 gcaggacact ggtgaaggag cagtgaggaa cctgcagagt cacacagttg 100  
 ctgaccaatt gagctgtgag cctggagcag atccgtgggc tgcagacccc 150  
 cgccccagtg cctctcccc tgcagccctg cccctcgaac tgtgacatgg 200  
 agagagtgac cctggccctt ctctactgg caggcctgac tgccttgga 250  
 gccaatgacc catttgccaa taaagacgat cccttctact atgactggaa 300  
 aaacctgcag ctgagcggac tgatctgcgg agggctcctg gccattgctg 350  
 ggatcgcggc agttctgagt ggcaaagca aatacaagag cagccagaag 400  
 cagcacagtc ctgtacctga gaaggccatc ccaatcatca ctccaggctc 450  
 tgccactact tgctgagcac aggactggcc tccagggatg gcctgaagcc 500  
 taacactggc cccagcacc tctccctg ggaggcctta tctcaagga 550  
 aggacttctc tccaagggca ggctgttagg cccctttctg atcaggaggc 600  
 ttctttatga attaaactcg cccaccacc ccctca 636

<210> 50  
 <211> 89  
 <212> PRT  
 <213> Homo Sapien

<400> 50  
 Met Glu Arg Val Thr Leu Ala Leu Leu Leu Leu Ala Gly Leu Thr  
 1 5 10 15

Ala	Leu	Glu	Ala	Asn	Asp	Pro	Phe	Ala	Asn	Lys	Asp	Asp	Pro	Phe
				20					25					30
Tyr	Tyr	Asp	Trp	Lys	Asn	Leu	Gln	Leu	Ser	Gly	Leu	Ile	Cys	Gly
				35					40					45
Gly	Leu	Leu	Ala	Ile	Ala	Gly	Ile	Ala	Ala	Val	Leu	Ser	Gly	Lys
				50					55					60
Cys	Lys	Tyr	Lys	Ser	Ser	Gln	Lys	Gln	His	Ser	Pro	Val	Pro	Glu
				65					70					75
Lys	Ala	Ile	Pro	Leu	Ile	Thr	Pro	Gly	Ser	Ala	Thr	Thr	Cys	
				80					85					

<210> 51  
 <211> 1734  
 <212> DNA  
 <213> Homo Sapien

<400> 51  
 gtggactctg agaagcccag gcagttgagg acaggagaga gaaggctgca 50  
 gaccagagg gagggaggac agggagtcgg aaggaggagg acagaggagg 100  
 gcacagagac gcagagcaag ggcggcaagg aggagaccct ggtgggagga 150  
 agacactctg gagagagagg gggctgggca gagatgaagt tccaggggcc 200  
 cctggcctgc ctctgctgg ccctctgcct gggcagtgagg gaggctggcc 250  
 ccctgcagag cggagaggaa agcactggga caaatattgg ggaggccctt 300  
 ggacatggcc tgggagacgc cctgagcgaa ggggtgggaa aggccattgg 350  
 caaagaggcc ggaggggcag ctggctctaa agtcagttag gcccttggcc 400  
 aagggaccag agaagcagtt ggcactggag tcaggcaggt tccaggcttt 450  
 ggcgcagcag atgctttggg caacagggtc ggggaagcag cccatgctct 500  
 gggaaacact gggcacgaga ttggcagaca ggcagaagat gtcattcgac 550  
 acggagcaga tgctgtccgc ggctcctggc agggggtgcc tggccacagt 600  
 ggtgcttggg aaacttctgg aggccatggc atctttggct ctcaaggtgg 650  
 ccttgagggc cagggccagg gcaatcctgg aggtctgggg actccgtggg 700  
 tccacggata ccccgaaac tcagcaggca gctttggaat gaatcctcag 750  
 ggagctccct ggggtcaagg aggcaatgga gggccaccaa actttgggac 800  
 caacactcag ggagctgtgg ccagcctgg ctatggttca gtgagagcca 850  
 gcaaccagaa tgaagggtgc acgaatcccc caccatctgg ctcaggtgga 900



ggctccagca actctggggg aggcagcggc tcacagtcgg gcagcagtg 950  
 cagtggcagc aatggtgaca acaacaatgg cagcagcagt ggtggcagca 1000  
 gcagtggcag cagcagtggc agcagcagtg gcggcagcag tggcggcagc 1050  
 agtgggtggca gcagtggcaa cagtgggtggc agcagaggtg acagcggcag 1100  
 tgagtccctcc tggggatcca gcaccggctc ctctccggc aaccacggtg 1150  
 ggagcggcgg aggaaatgga cataaaccgg ggtgtgaaaa gccagggaat 1200  
 gaagcccgcg ggagcgggga atctgggatt cagggcttca gaggacaggg 1250  
 agtttccagc aacatgaggg aaataagcaa agagggcaat cgcctccttg 1300  
 gaggctcttg agacaattat cgggggcaag ggtcgagctg gggcagtgga 1350  
 ggaggtgacg ctggttggtg agtcaatact gtgaactctg agacgtctcc 1400  
 tgggatgttt aactttgaca ctttctggaa gaattttaaa tccaagctgg 1450  
 gtttcatcaa ctgggatgcc ataaacaagg accagagaag ctctcgcac 1500  
 ccgtgacctc cagacaagga gccaccagat tggatgggag cccccacact 1550  
 cctccttaa aacaccaccc tctcatcact aatctcagcc cttgcccttg 1600  
 aaataaacct tagctgcccc aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1650  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1700  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1734

<210> 52  
 <211> 440  
 <212> PRT  
 <213> Homo Sapien

<400> 52  
 Met Lys Phe Gln Gly Pro Leu Ala Cys Leu Leu Leu Ala Leu Cys  
 1 5 10 15  
 Leu Gly Ser Gly Glu Ala Gly Pro Leu Gln Ser Gly Glu Glu Ser  
 20 25 30  
 Thr Gly Thr Asn Ile Gly Glu Ala Leu Gly His Gly Leu Gly Asp  
 35 40 45  
 Ala Leu Ser Glu Gly Val Gly Lys Ala Ile Gly Lys Glu Ala Gly  
 50 55 60  
 Gly Ala Ala Gly Ser Lys Val Ser Glu Ala Leu Gly Gln Gly Thr  
 65 70 75  
 Arg Glu Ala Val Gly Thr Gly Val Arg Gln Val Pro Gly Phe Gly  
 80 85 90

Ala	Ala	Asp	Ala	Leu	Gly	Asn	Arg	Val	Gly	Glu	Ala	Ala	His	Ala		95	100	105
Leu	Gly	Asn	Thr	Gly	His	Glu	Ile	Gly	Arg	Gln	Ala	Glu	Asp	Val		110	115	120
Ile	Arg	His	Gly	Ala	Asp	Ala	Val	Arg	Gly	Ser	Trp	Gln	Gly	Val		125	130	135
Pro	Gly	His	Ser	Gly	Ala	Trp	Glu	Thr	Ser	Gly	Gly	His	Gly	Ile		140	145	150
Phe	Gly	Ser	Gln	Gly	Gly	Leu	Gly	Gly	Gln	Gly	Gln	Gly	Asn	Pro		155	160	165
Gly	Gly	Leu	Gly	Thr	Pro	Trp	Val	His	Gly	Tyr	Pro	Gly	Asn	Ser		170	175	180
Ala	Gly	Ser	Phe	Gly	Met	Asn	Pro	Gln	Gly	Ala	Pro	Trp	Gly	Gln		185	190	195
Gly	Gly	Asn	Gly	Gly	Pro	Pro	Asn	Phe	Gly	Thr	Asn	Thr	Gln	Gly		200	205	210
Ala	Val	Ala	Gln	Pro	Gly	Tyr	Gly	Ser	Val	Arg	Ala	Ser	Asn	Gln		215	220	225
Asn	Glu	Gly	Cys	Thr	Asn	Pro	Pro	Pro	Ser	Gly	Ser	Gly	Gly	Gly		230	235	240
Ser	Ser	Asn	Ser	Gly	Gly	Gly	Ser	Gly	Ser	Gln	Ser	Gly	Ser	Ser		245	250	255
Gly	Ser	Gly	Ser	Asn	Gly	Asp	Asn	Asn	Asn	Gly	Ser	Ser	Ser	Gly		260	265	270
Gly	Ser	Ser	Ser	Gly	Ser	Ser	Ser	Gly	Ser	Ser	Ser	Gly	Gly	Ser		275	280	285
Ser	Gly	Gly	Ser	Ser	Gly	Gly	Ser	Ser	Gly	Asn	Ser	Gly	Gly	Ser		290	295	300
Arg	Gly	Asp	Ser	Gly	Ser	Glu	Ser	Ser	Trp	Gly	Ser	Ser	Thr	Gly		305	310	315
Ser	Ser	Ser	Gly	Asn	His	Gly	Gly	Ser	Gly	Gly	Gly	Asn	Gly	His		320	325	330
Lys	Pro	Gly	Cys	Glu	Lys	Pro	Gly	Asn	Glu	Ala	Arg	Gly	Ser	Gly		335	340	345
Glu	Ser	Gly	Ile	Gln	Gly	Phe	Arg	Gly	Gln	Gly	Val	Ser	Ser	Asn		350	355	360
Met	Arg	Glu	Ile	Ser	Lys	Glu	Gly	Asn	Arg	Leu	Leu	Gly	Gly	Ser		365	370	375

Gly	Asp	Asn	Tyr	Arg	Gly	Gln	Gly	Ser	Ser	Trp	Gly	Ser	Gly	Gly
				380					385					390
Gly	Asp	Ala	Val	Gly	Gly	Val	Asn	Thr	Val	Asn	Ser	Glu	Thr	Ser
				395					400					405
Pro	Gly	Met	Phe	Asn	Phe	Asp	Thr	Phe	Trp	Lys	Asn	Phe	Lys	Ser
				410					415					420
Lys	Leu	Gly	Phe	Ile	Asn	Trp	Asp	Ala	Ile	Asn	Lys	Asp	Gln	Arg
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 <211> 1676  
 <212> DNA  
 <213> Homo Sapien

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 <212> PRT  
 <213> Homo Sapien

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 Arg Arg Leu Gln Cys Phe Pro Gln Pro Pro Lys Arg Asn Trp Phe  
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 Trp Gly His Leu Gly Leu Ile Thr Pro Thr Glu Glu Gly Leu Lys  
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 Asp Ser Thr Gln Met Ser Ala Thr Tyr Ser Gln Gly Phe Thr Val  
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 Trp Leu Gly Pro Ile Ile Pro Phe Ile Val Leu Cys His Pro Asp  
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Leu	His	Pro	Pro	Ala	Pro	Phe	Ile	Ser	Arg	Cys	Cys	Thr	Gln	Asp	
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Ile	Val	Leu	Pro	Asp	Gly	Arg	Val	Ile	Pro	Lys	Gly	Ile	Thr	Cys	
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Val	Leu	Ala	Leu	Met	Leu	Leu	His	Phe	Arg	Phe	Leu	Pro	Asp	His	
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Thr	Glu	Pro	Arg	Arg	Lys	Leu	Glu	Leu	Ile	Met	Arg	Ala	Glu	Gly	
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<211> 644

<212> DNA

<213> Homo Sapien

<400> 55

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<211> 77

<212> PRT

<213> Homo Sapien

<400> 56

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Cys	Ser	Ala	Phe	Trp	Trp	His	Asn	Lys	Gly	Leu	Ala	Leu	Ile	Phe
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Cys	Ile	Leu	Gln	Ser	Leu	Ala	Leu	Thr	Trp	Tyr	Ser	Leu	Ser	Phe
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<210> 57

<211> 3334

<212> DNA

<213> Homo Sapien

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<211> 469

<212> PRT

<213> Homo Sapien

<400> 58

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50		55	60
Lys Asp Leu Asp Gly	Gln Leu Asp Phe	Glu Glu Phe Val His	Tyr
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Leu Gln Asp His Glu	Lys Lys Leu Arg	Leu Val Phe Lys Ile	Leu
80		85	90
Asp Lys Lys Asn Asp	Gly Arg Ile Asp	Ala Gln Glu Ile Met	Gln
95		100	105
Ser Leu Arg Asp Leu	Gly Val Lys Ile	Ser Glu Gln Gln Ala	Glu
110		115	120
Lys Ile Leu Lys Ser	Met Asp Lys Asn	Gly Thr Met Thr Ile	Asp
125		130	135
Trp Asn Glu Trp Arg	Asp Tyr His Leu	Leu His Pro Val Glu	Asn
140		145	150
Ile Pro Glu Ile Ile	Leu Tyr Trp Lys	His Ser Thr Ile Phe	Asp
155		160	165
Val Gly Glu Asn Leu	Thr Val Pro Asp	Glu Phe Thr Val Glu	Glu
170		175	180
Arg Gln Thr Gly Met	Trp Trp Arg His	Leu Val Ala Gly Gly	Gly
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Ala Gly Ala Val Ser	Arg Thr Cys Thr	Ala Pro Leu Asp Arg	Leu
200		205	210
Lys Val Leu Met Gln	Val His Ala Ser	Arg Ser Asn Asn Met	Gly
215		220	225
Ile Val Gly Gly Phe	Thr Gln Met Ile	Arg Glu Gly Gly Ala	Arg
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Ser Leu Trp Arg Gly	Asn Gly Ile Asn	Val Leu Lys Ile Ala	Pro
245		250	255
Glu Ser Ala Ile Lys	Phe Met Ala Tyr	Glu Gln Ile Lys Arg	Leu
260		265	270
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275		280	285
Ala Gly Ser Leu Ala	Gly Ala Ile Ala	Gln Ser Ser Ile Tyr	Pro

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Tyr	Ser	Gly	Met	Leu	Asp	Cys	Ala	Arg	Arg	Ile	Leu	Ala	Arg	Glu
				320					325					330
Gly	Val	Ala	Ala	Phe	Tyr	Lys	Gly	Tyr	Val	Pro	Asn	Met	Leu	Gly
				335					340					345
Ile	Ile	Pro	Tyr	Ala	Gly	Ile	Asp	Leu	Ala	Val	Tyr	Glu	Thr	Leu
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Lys	Asn	Ala	Trp	Leu	Gln	His	Tyr	Ala	Val	Asn	Ser	Ala	Asp	Pro
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Gly	Val	Phe	Val	Leu	Leu	Ala	Cys	Gly	Thr	Met	Ser	Ser	Thr	Cys
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Gln	Ala	Gln	Ala	Ser	Ile	Glu	Gly	Ala	Pro	Glu	Val	Thr	Met	Ser
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Ser	Leu	Phe	Lys	His	Ile	Leu	Arg	Thr	Glu	Gly	Ala	Phe	Gly	Leu
				425					430					435
Tyr	Arg	Gly	Leu	Ala	Pro	Asn	Phe	Met	Lys	Val	Ile	Pro	Ala	Val
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 <212> DNA  
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<211> 282

<212> PRT

<213> Homo Sapien

<400> 60

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				20					25					30	
Ile	Ser	Gly	Arg	His	Ser	Ile	Thr	Val	Thr	Thr	Val	Ala	Ser	Ala	
				35					40					45	
Gly	Asn	Ile	Gly	Glu	Asp	Gly	Ile	Leu	Ser	Cys	Thr	Phe	Glu	Pro	
				50					55					60	
Asp	Ile	Lys	Leu	Ser	Asp	Ile	Val	Ile	Gln	Trp	Leu	Lys	Glu	Gly	
				65					70					75	
Val	Leu	Gly	Leu	Val	His	Glu	Phe	Lys	Glu	Gly	Lys	Asp	Glu	Leu	
				80					85					90	
Ser	Glu	Gln	Asp	Glu	Met	Phe	Arg	Gly	Arg	Thr	Ala	Val	Phe	Ala	
				95					100					105	
Asp	Gln	Val	Ile	Val	Gly	Asn	Ala	Ser	Leu	Arg	Leu	Lys	Asn	Val	
				110					115					120	
Gln	Leu	Thr	Asp	Ala	Gly	Thr	Tyr	Lys	Cys	Tyr	Ile	Ile	Thr	Ser	
				125					130					135	
Lys	Gly	Lys	Gly	Asn	Ala	Asn	Leu	Glu	Tyr	Lys	Thr	Gly	Ala	Phe	
				140					145					150	
Ser	Met	Pro	Glu	Val	Asn	Val	Asp	Tyr	Asn	Ala	Ser	Ser	Glu	Thr	
				155					160					165	
Leu	Arg	Cys	Glu	Ala	Pro	Arg	Trp	Phe	Pro	Gln	Pro	Thr	Val	Val	
				170					175					180	
Trp	Ala	Ser	Gln	Val	Asp	Gln	Gly	Ala	Asn	Phe	Ser	Glu	Val	Ser	
				185					190					195	
Asn	Thr	Ser	Phe	Glu	Leu	Asn	Ser	Glu	Asn	Val	Thr	Met	Lys	Val	
				200					205					210	
Val	Ser	Val	Leu	Tyr	Asn	Val	Thr	Ile	Asn	Asn	Thr	Tyr	Ser	Cys	
				215					220					225	
Met	Ile	Glu	Asn	Asp	Ile	Ala	Lys	Ala	Thr	Gly	Asp	Ile	Lys	Val	
				230					235					240	
Thr	Glu	Ser	Glu	Ile	Lys	Arg	Arg	Ser	His	Leu	Gln	Leu	Leu	Asn	
				245					250					255	
Ser	Lys	Ala	Ser	Leu	Cys	Val	Ser	Ser	Phe	Phe	Ala	Ile	Ser	Trp	
				260					265					270	

Ala Leu Leu Pro Leu Ser Pro Tyr Leu Met Leu Lys  
275 280

<210> 61  
<211> 1617  
<212> DNA  
<213> Homo Sapien

<400> 61  
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ccccccaata gtggagggca gtatggtagt gggctacccc ctgggtggtag 150  
ttatgggggt cctgcccctg gagggcctta tggaccacca gctgggtggag 200  
ggccctatgg acaccccaat cctgggatgt tcccctctgg aactccagga 250  
ggaccatatg gcggtgcagc tcccgggggc ccctatggtc agccacctcc 300  
aagttcctac ggtgcccagc agcctgggct ttatggacag ggtggcgccc 350  
ctcccaatgt ggatcctgag gctactcct ggttccagtc ggtggactca 400  
gatcacagtg gctatatctc catgaaggag ctaaagcagg ccctgggtcaa 450  
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tgtttgacaa gaccaagtca ggccgcatcg atgtctacgg cttctcagcc 550  
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cagctgtaca aggcaacatc cggctcagct tcgaggactt cgtcaccatg 850  
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cagggacctt tcttggttc ttagagttag agaagtatgt ggacatctct 950  
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accggggctg aggcacaca gataggggccc tgatggagga gaggatagaa 1100  
gttgaatgtc ctgatggcca tgagcagttg agtggcacag cctggcacca 1150  
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tgatgccagt ggtgagtgtt catcggcctg ttaccgttag tacctgtgtt 1250  
 ccctcaccag gccatcctgt caaacgagcc cattttctcc aaagtggaat 1300  
 ctgaccaagc atgagagaga tctgtctatg ggaccagtgg cttggattct 1350  
 gccacacca taaatccttg tgtgttaact tctagctgcc tggggctggc 1400  
 cctgctcaga caaatctgct ccctgggcat ctttggccag gcttctgccc 1450  
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 ctccaggaga cagtggtcac ctctccctgc caatactttt tttaatttgc 1550  
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 aaagatgaa actctga 1617

<210> 62

<211> 284

<212> PRT

<213> Homo Sapien

<400> 62

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Gln	Ala	Pro	Gly	Ala	Pro	Pro	Gly	Ser	Tyr	Tyr	Pro	Gly	Pro	Pro
				20					25					30
Asn	Ser	Gly	Gly	Gln	Tyr	Gly	Ser	Gly	Leu	Pro	Pro	Gly	Gly	Gly
				35					40					45
Tyr	Gly	Gly	Pro	Ala	Pro	Gly	Gly	Pro	Tyr	Gly	Pro	Pro	Ala	Gly
				50					55					60
Gly	Gly	Pro	Tyr	Gly	His	Pro	Asn	Pro	Gly	Met	Phe	Pro	Ser	Gly
				65					70					75
Thr	Pro	Gly	Gly	Pro	Tyr	Gly	Gly	Ala	Ala	Pro	Gly	Gly	Pro	Tyr
				80					85					90
Gly	Gln	Pro	Pro	Pro	Ser	Ser	Tyr	Gly	Ala	Gln	Gln	Pro	Gly	Leu
				95					100					105
Tyr	Gly	Gln	Gly	Gly	Ala	Pro	Pro	Asn	Val	Asp	Pro	Glu	Ala	Tyr
				110					115					120
Ser	Trp	Phe	Gln	Ser	Val	Asp	Ser	Asp	His	Ser	Gly	Tyr	Ile	Ser
				125					130					135
Met	Lys	Glu	Leu	Lys	Gln	Ala	Leu	Val	Asn	Cys	Asn	Trp	Ser	Ser
				140					145					150
Phe	Asn	Asp	Glu	Thr	Cys	Leu	Met	Met	Ile	Asn	Met	Phe	Asp	Lys
				155					160					165

Thr	Lys	Ser	Gly	Arg	Ile	Asp	Val	Tyr	Gly	Phe	Ser	Ala	Leu	Trp
				170					175					180
Lys	Phe	Ile	Gln	Gln	Trp	Lys	Asn	Leu	Phe	Gln	Gln	Tyr	Asp	Arg
				185					190					195
Asp	Arg	Ser	Gly	Ser	Ile	Ser	Tyr	Thr	Glu	Leu	Gln	Gln	Ala	Leu
				200					205					210
Ser	Gln	Met	Gly	Tyr	Asn	Leu	Ser	Pro	Gln	Phe	Thr	Gln	Leu	Leu
				215					220					225
Val	Ser	Arg	Tyr	Cys	Pro	Arg	Ser	Ala	Asn	Pro	Ala	Met	Gln	Leu
				230					235					240
Asp	Arg	Phe	Ile	Gln	Val	Cys	Thr	Gln	Leu	Gln	Val	Leu	Thr	Glu
				245					250					255
Ala	Phe	Arg	Glu	Lys	Asp	Thr	Ala	Val	Gln	Gly	Asn	Ile	Arg	Leu
				260					265					270
Ser	Phe	Glu	Asp	Phe	Val	Thr	Met	Thr	Ala	Ser	Arg	Met	Leu	
				275					280					

<210> 63  
 <211> 1234  
 <212> DNA  
 <213> Homo Sapien

<400> 63  
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 tggctctgtct tcattctccca ggccctctttg cccggagcat cgggtgttgtg 100  
 gaggagaaag tttcccaaaa cttcgggacc aacttgccctc agctcggaca 150  
  
 accttctctcc actggccctt ctaactctga acatccgcag cccgctctgg 200  
  
 accctagggtc taatgacttg gcaaggggttc ctctgaagct cagcgtgcct 250  
  
 ccatcagatg gcttcccacc tgcaggaggt tctgcagtgc agaggtggcc 300  
  
 tccatcgtgg gggctgctg ccatggattc ctggccccct gaggatcctt 350  
  
 ggcagatgat ggctgctgcg gctgaggacc gcctggggga agcgtgcct 400  
  
 gaagaactct cttacctctc cagtgtgctg gccctcgctc cgggcagtgg 450  
  
 ccctttgcct ggggagtctt ctcccgatgc cacaggcctc tcacctgagg 500  
  
 cttcactcct ccaccaggac tcggagtcca gacgactgcc ccgttctaata 550  
  
 tcaactgggag cggggggaaa aatcctttcc caacgcctc cctgggtctct 600  
  
 catccacagg gttctgcctg atcaccctg gggtagcctg aatccagtg 650  
  
 tgtcctgggg aggtggaggc cctgggactg gttggggaac gaggcccatg 700



ccacaccctg aggggaatctg ggggtatcaat aatcaacccc caggtaccag 750  
 ctgggggaaat attaatcggt atccaggagg cagctgggga aatattaatc 800  
 ggtatccagg aggcagctgg ggggaatatta atcggtatcc aggaggcagc 850  
 tgggggaata ttcattctata cccaggtatc aataacccat ttcctcctgg 900  
 agttctccgc cctcctggct cttcttgga catcccagct ggcttcctta 950  
 atcctccaag ccctaggttg cagtggggct agagcacgat agagggaaac 1000  
 ccaacattgg gagttagagt cctgctcccg ccccttgctg tgtggggtca 1050  
 atccaggccc tgtaacatg tttccagcac tatccccact tttcagtgcc 1100  
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1200  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1234

<210> 64  
 <211> 325  
 <212> PRT  
 <213> Homo Sapien

<400> 64  
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 Leu Val Cys Leu His Leu Pro Gly Leu Phe Ala Arg Ser Ile Gly  
 20 25 30  
 Val Val Glu Glu Lys Val Ser Gln Asn Phe Gly Thr Asn Leu Pro  
 35 40 45  
 Gln Leu Gly Gln Pro Ser Ser Thr Gly Pro Ser Asn Ser Glu His  
 50 55 60  
 Pro Gln Pro Ala Leu Asp Pro Arg Ser Asn Asp Leu Ala Arg Val  
 65 70 75  
 Pro Leu Lys Leu Ser Val Pro Pro Ser Asp Gly Phe Pro Pro Ala  
 80 85 90  
 Gly Gly Ser Ala Val Gln Arg Trp Pro Pro Ser Trp Gly Leu Pro  
 95 100 105  
 Ala Met Asp Ser Trp Pro Pro Glu Asp Pro Trp Gln Met Met Ala  
 110 115 120  
 Ala Ala Ala Glu Asp Arg Leu Gly Glu Ala Leu Pro Glu Glu Leu  
 125 130 135  
 Ser Tyr Leu Ser Ser Ala Ala Ala Leu Ala Pro Gly Ser Gly Pro  
 140 145 150

Leu	Pro	Gly	Glu	Ser	Ser	Pro	Asp	Ala	Thr	Gly	Leu	Ser	Pro	Glu	155	160	165
Ala	Ser	Leu	Leu	His	Gln	Asp	Ser	Glu	Ser	Arg	Arg	Leu	Pro	Arg	170	175	180
Ser	Asn	Ser	Leu	Gly	Ala	Gly	Gly	Lys	Ile	Leu	Ser	Gln	Arg	Pro	185	190	195
Pro	Trp	Ser	Leu	Ile	His	Arg	Val	Leu	Pro	Asp	His	Pro	Trp	Gly	200	205	210
Thr	Leu	Asn	Pro	Ser	Val	Ser	Trp	Gly	Gly	Gly	Gly	Pro	Gly	Thr	215	220	225
Gly	Trp	Gly	Thr	Arg	Pro	Met	Pro	His	Pro	Glu	Gly	Ile	Trp	Gly	230	235	240
Ile	Asn	Asn	Gln	Pro	Pro	Gly	Thr	Ser	Trp	Gly	Asn	Ile	Asn	Arg	245	250	255
Tyr	Pro	Gly	Gly	Ser	Trp	Gly	Asn	Ile	Asn	Arg	Tyr	Pro	Gly	Gly	260	265	270
Ser	Trp	Gly	Asn	Ile	Asn	Arg	Tyr	Pro	Gly	Gly	Ser	Trp	Gly	Asn	275	280	285
Ile	His	Leu	Tyr	Pro	Gly	Ile	Asn	Asn	Pro	Phe	Pro	Pro	Gly	Val	290	295	300
Leu	Arg	Pro	Pro	Gly	Ser	Ser	Trp	Asn	Ile	Pro	Ala	Gly	Phe	Pro	305	310	315
Asn	Pro	Pro	Ser	Pro	Arg	Leu	Gln	Trp	Gly						320	325	

<210> 65  
 <211> 422  
 <212> DNA  
 <213> Homo Sapien

<400> 65  
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 gcagctcaca tggaacaggg ccgggtatga ctttgcaact gaagctgaag 150  
 gagtcttttc tgacaaattc ctctatgag tccagcttcc tggaattgct 200  
 tgaaaagctc tgccctctcc tccatctccc ttcagggacc agcgtcaccc 250  
 tccaccatgc aagatctcaa caccatgttg tctgcaacac atgacagcca 300  
 ttgaagcctg tgtccttctt ggcccgggct tttgggcccg ggatgcagga 350  
 ggcaggcccc gaccctgtct ttcagcaggc cccaccctc ctgagtggca 400

ataaataaaa ttcggtatgc tg 422

<210> 66

<211> 78

<212> PRT

<213> Homo Sapien

<400> 66

Met	Gly	Ser	Gly	Leu	Pro	Leu	Val	Leu	Leu	Leu	Thr	Leu	Leu	Gly
1				5				10						15

Ser	Ser	His	Gly	Thr	Gly	Pro	Gly	Met	Thr	Leu	Gln	Leu	Lys	Leu
			20					25						30

Lys	Glu	Ser	Phe	Leu	Thr	Asn	Ser	Ser	Tyr	Glu	Ser	Ser	Phe	Leu
			35					40						45

Glu	Leu	Leu	Glu	Lys	Leu	Cys	Leu	Leu	Leu	His	Leu	Pro	Ser	Gly
			50					55						60

Thr	Ser	Val	Thr	Leu	His	His	Ala	Arg	Ser	Gln	His	His	Val	Val
			65					70						75

Cys Asn Thr

<210> 67

<211> 744

<212> DNA

<213> Homo Sapien

<400> 67

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gccaccacgc ccatggcgaa ccccgggctg gggctgcttc tggcgctggg 200

cctgccgttc ctgctggccc gctggggccg agcctggggg caaatacaga 250

ccacttctgc aaatgagaat agcactgttt tgccttcac caccagctcc 300

agctccgatg gcaacctgcg tccggaagcc atcactgcta tcatcgtgg 350

cttctccctc ttggctgcct tgctcctggc tgtggggctg gcactgttgg 400

tgcggaagct tcgggagaag cggcagacgg agggcaccta ccggcccagt 450

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caaggagacg gtgcagggt gcctgcccac ctaggtcccc tctcctgcat 550

ctgtctccct tcattgctgt gtgaccttgg ggaaaggcag tgccctctct 600

gggcagtcag atccaccag tgcttaatag cagggaagaa ggtacttcaa 650

agactctgcc cctgagggtca agagaggatg gggctattca cttttatata 700

tttatataaa attagtagtg agatgtaaaa aaaaaaaaaa aaaa 744

<210> 68  
<211> 123  
<212> PRT  
<213> Homo Sapien

<400> 68  
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20 25 30  
Thr Ser Ala Asn Glu Asn Ser Thr Val Leu Pro Ser Ser Thr Ser  
35 40 45  
Ser Ser Ser Asp Gly Asn Leu Arg Pro Glu Ala Ile Thr Ala Ile  
50 55 60  
Ile Val Val Phe Ser Leu Leu Ala Ala Leu Leu Leu Ala Val Gly  
65 70 75  
Leu Ala Leu Leu Val Arg Lys Leu Arg Glu Lys Arg Gln Thr Glu  
80 85 90  
Gly Thr Tyr Arg Pro Ser Ser Glu Glu Gln Phe Ser His Ala Ala  
95 100 105  
Glu Ala Arg Ala Pro Gln Asp Ser Lys Glu Thr Val Gln Gly Cys  
110 115 120  
Leu Pro Ile

<210> 69  
<211> 3265  
<212> DNA  
<213> Homo Sapien

<400> 69  
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cctcttagtt ctgtgcctgc tgcaccagtc aaatacttcc ttcattaagc 100  
tgaataataa tggctttgaa gatattgtca ttgttataga tcctagtgtg 150  
ccagaagatg aaaaaataat tgaacaaata gaggatatgg tgactacagc 200  
ttctacgtac ctgtttgaag ccacagaaaa aagatttttt ttcaaaaatg 250  
tatctatatt aattcctgag aattggaagg aaaatcctca gtacaaaagg 300  
ccaaaacatg aaaaccataa acatgctgat gttatagttg caccacctac 350

actcccaggt agagatgaac catacaccaa gcagttcaca gaatgtggag 400  
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 caaaatgaat atggaccacc aggcaaactg tttgtccatg agtggggtca 500  
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 ggtagaaata gagtttataa gtgtcaagga ggcagctgtc ttagtagagc 650  
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 cctccacctg tcttctcatt gctgaagatc agtcaaagaa ttgtgtgctt 950  
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 aatccaaata aaaagcagtg atgaaagaaa cacactcatg gcaggattac 1150  
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 gctgctgact gatggggagg ataacactgc aagttcttgt attgatgaag 1300  
 tgaaacaaag tggggccatt gttcatttta ttgctttggg aagagctgct 1350  
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 tgtttcagat gaagctcaga acaatggcct cattgatgct tttggggctc 1450  
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 aagggattaa cactgaatag taatgcctgg atgaacgaca ctgtcataat 1550  
 tgatagtaca gtgggaaagg acacgttctt tctcatcaca tggaacagtc 1600  
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 tgcaaagggt ggcacttggg catacaatct tcaagccaaa gcgaaccag 1750  
 aaacattaac tattacagta acttctcgag cagcaaattc ttctgtgcct 1800

ccaatcacag tgaatgctaa aatgaataag gacgtaaaca gtttccccag 1850  
 cccaatgatt gtttacgcag aaattctaca aggatatgta cctgttcttg 1900  
 gagccaatgt gactgctttc attgaatcac agaattggaca tacagaagtt 1950  
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 agtctactcc aggtatttta cagcatatac agaaaatggc agatatagct 2050  
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 cctccactga atagagccgc gtacatacca ggctgggtag tgaacgggga 2150  
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 ccttgaggga tttcagccga acagcatccg gaggtgcatt tgtggtatca 2250  
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 caccaggaga taattttgat gttggaaaag ttcaacgtta tatcataaga 2400  
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 agtaaatact actgatctgt caccaaagga ggccaactcc aaggaaagct 2500  
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 aacactcatg gatatgtaaa aactgtcaag attaaaattt aatagtttca 3000  
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 gatatttcaa attgcatcaa gaaattaaaa tcatttatct gagtagtcaa 3150  
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<210> 70

<211> 919

<212> PRT

<213> Homo Sapien

<400> 70

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Leu	His	Gln	Ser	Asn	Thr	Ser	Phe	Ile	Lys	Leu	Asn	Asn	Asn	Gly
				20					25					30

Phe	Glu	Asp	Ile	Val	Ile	Val	Ile	Asp	Pro	Ser	Val	Pro	Glu	Asp
				35					40					45

Glu	Lys	Ile	Ile	Glu	Gln	Ile	Glu	Asp	Met	Val	Thr	Thr	Ala	Ser
				50					55					60

Thr	Tyr	Leu	Phe	Glu	Ala	Thr	Glu	Lys	Arg	Phe	Phe	Phe	Lys	Asn
				65					70					75

Val	Ser	Ile	Leu	Ile	Pro	Glu	Asn	Trp	Lys	Glu	Asn	Pro	Gln	Tyr
				80					85					90

Lys	Arg	Pro	Lys	His	Glu	Asn	His	Lys	His	Ala	Asp	Val	Ile	Val
				95					100					105

Ala	Pro	Pro	Thr	Leu	Pro	Gly	Arg	Asp	Glu	Pro	Tyr	Thr	Lys	Gln
				110					115					120

Phe	Thr	Glu	Cys	Gly	Glu	Lys	Gly	Glu	Tyr	Ile	His	Phe	Thr	Pro
				125					130					135

Asp	Leu	Leu	Leu	Gly	Lys	Lys	Gln	Asn	Glu	Tyr	Gly	Pro	Pro	Gly
				140					145					150

Lys	Leu	Phe	Val	His	Glu	Trp	Ala	His	Leu	Arg	Trp	Gly	Val	Phe
				155					160					165

Asp	Glu	Tyr	Asn	Glu	Asp	Gln	Pro	Phe	Tyr	Arg	Ala	Lys	Ser	Lys
				170					175					180

Lys	Ile	Glu	Ala	Thr	Arg	Cys	Ser	Ala	Gly	Ile	Ser	Gly	Arg	Asn
				185					190					195

Arg	Val	Tyr	Lys	Cys	Gln	Gly	Gly	Ser	Cys	Leu	Ser	Arg	Ala	Cys
				200					205					210

Arg	Ile	Asp	Ser	Thr	Thr	Lys	Leu	Tyr	Gly	Lys	Asp	Cys	Gln	Phe
				215					220					225

Phe	Pro	Asp	Lys	Val	Gln	Thr	Glu	Lys	Ala	Ser	Ile	Met	Phe	Met
				230					235					240

Gln Ser Ile Asp	Ser Val Val Glu Phe	Cys Asn Glu Lys Thr His
245	250	255
Asn Gln Glu Ala	Pro Ser Leu Gln Asn	Ile Lys Cys Asn Phe Arg
260	265	270
Ser Thr Trp Glu	Val Ile Ser Asn Ser	Glu Asp Phe Lys Asn Thr
275	280	285
Ile Pro Met Val	Thr Pro Pro Pro Pro	Pro Val Phe Ser Leu Leu
290	295	300
Lys Ile Ser Gln	Arg Ile Val Cys Leu	Val Leu Asp Lys Ser Gly
305	310	315
Ser Met Gly Gly	Lys Asp Arg Leu Asn	Arg Met Asn Gln Ala Ala
320	325	330
Lys His Phe Leu	Leu Gln Thr Val Glu	Asn Gly Ser Trp Val Gly
335	340	345
Met Val His Phe	Asp Ser Thr Ala Thr	Ile Val Asn Lys Leu Ile
350	355	360
Gln Ile Lys Ser	Ser Asp Glu Arg Asn	Thr Leu Met Ala Gly Leu
365	370	375
Pro Thr Tyr Pro	Leu Gly Gly Thr Ser	Ile Cys Ser Gly Ile Lys
380	385	390
Tyr Ala Phe Gln	Val Ile Gly Glu Leu	His Ser Gln Leu Asp Gly
395	400	405
Ser Glu Val Leu	Leu Leu Thr Asp Gly	Glu Asp Asn Thr Ala Ser
410	415	420
Ser Cys Ile Asp	Glu Val Lys Gln Ser	Gly Ala Ile Val His Phe
425	430	435
Ile Ala Leu Gly	Arg Ala Ala Asp Glu	Ala Val Ile Glu Met Ser
440	445	450
Lys Ile Thr Gly	Gly Ser His Phe Tyr	Val Ser Asp Glu Ala Gln
455	460	465
Asn Asn Gly Leu	Ile Asp Ala Phe Gly	Ala Leu Thr Ser Gly Asn
470	475	480
Thr Asp Leu Ser	Gln Lys Ser Leu Gln	Leu Glu Ser Lys Gly Leu
485	490	495
Thr Leu Asn Ser	Asn Ala Trp Met Asn	Asp Thr Val Ile Ile Asp
500	505	510
Ser Thr Val Gly	Lys Asp Thr Phe Phe	Leu Ile Thr Trp Asn Ser
515	520	525



Leu	Pro	Pro	Ser	Ile	Ser	Leu	Trp	Asp	Pro	Ser	Gly	Thr	Ile	Met	
				530					535					540	
Glu	Asn	Phe	Thr	Val	Asp	Ala	Thr	Ser	Lys	Met	Ala	Tyr	Leu	Ser	
				545					550					555	
Ile	Pro	Gly	Thr	Ala	Lys	Val	Gly	Thr	Trp	Ala	Tyr	Asn	Leu	Gln	
				560					565					570	
Ala	Lys	Ala	Asn	Pro	Glu	Thr	Leu	Thr	Ile	Thr	Val	Thr	Ser	Arg	
				575					580					585	
Ala	Ala	Asn	Ser	Ser	Val	Pro	Pro	Ile	Thr	Val	Asn	Ala	Lys	Met	
				590					595					600	
Asn	Lys	Asp	Val	Asn	Ser	Phe	Pro	Ser	Pro	Met	Ile	Val	Tyr	Ala	
				605					610					615	
Glu	Ile	Leu	Gln	Gly	Tyr	Val	Pro	Val	Leu	Gly	Ala	Asn	Val	Thr	
				620					625					630	
Ala	Phe	Ile	Glu	Ser	Gln	Asn	Gly	His	Thr	Glu	Val	Leu	Glu	Leu	
				635					640					645	
Leu	Asp	Asn	Gly	Ala	Gly	Ala	Asp	Ser	Phe	Lys	Asn	Asp	Gly	Val	
				650					655					660	
Tyr	Ser	Arg	Tyr	Phe	Thr	Ala	Tyr	Thr	Glu	Asn	Gly	Arg	Tyr	Ser	
				665					670					675	
Leu	Lys	Val	Arg	Ala	His	Gly	Gly	Ala	Asn	Thr	Ala	Arg	Leu	Lys	
				680					685					690	
Leu	Arg	Pro	Pro	Leu	Asn	Arg	Ala	Ala	Tyr	Ile	Pro	Gly	Trp	Val	
				695					700					705	
Val	Asn	Gly	Glu	Ile	Glu	Ala	Asn	Pro	Pro	Arg	Pro	Glu	Ile	Asp	
				710					715					720	
Glu	Asp	Thr	Gln	Thr	Thr	Leu	Glu	Asp	Phe	Ser	Arg	Thr	Ala	Ser	
				725					730					735	
Gly	Gly	Ala	Phe	Val	Val	Ser	Gln	Val	Pro	Ser	Leu	Pro	Leu	Pro	
				740					745					750	
Asp	Gln	Tyr	Pro	Pro	Ser	Gln	Ile	Thr	Asp	Leu	Asp	Ala	Thr	Val	
				755					760					765	
His	Glu	Asp	Lys	Ile	Ile	Leu	Thr	Trp	Thr	Ala	Pro	Gly	Asp	Asn	
				770					775					780	
Phe	Asp	Val	Gly	Lys	Val	Gln	Arg	Tyr	Ile	Ile	Arg	Ile	Ser	Ala	
				785					790					795	
Ser	Ile	Leu	Asp	Leu	Arg	Asp	Ser	Phe	Asp	Asp	Ala	Leu	Gln	Val	
				800					805					810	

Asn	Thr	Thr	Asp	Leu	Ser	Pro	Lys	Glu	Ala	Asn	Ser	Lys	Glu	Ser	815	820	825
Phe	Ala	Phe	Lys	Pro	Glu	Asn	Ile	Ser	Glu	Glu	Asn	Ala	Thr	His	830	835	840
Ile	Phe	Ile	Ala	Ile	Lys	Ser	Ile	Asp	Lys	Ser	Asn	Leu	Thr	Ser	845	850	855
Lys	Val	Ser	Asn	Ile	Ala	Gln	Val	Thr	Leu	Phe	Ile	Pro	Gln	Ala	860	865	870
Asn	Pro	Asp	Asp	Ile	Asp	Pro	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Pro	875	880	885
Thr	Pro	Asp	Lys	Ser	His	Asn	Ser	Gly	Val	Asn	Ile	Ser	Thr	Leu	890	895	900
Val	Leu	Ser	Val	Ile	Gly	Ser	Val	Val	Ile	Val	Asn	Phe	Ile	Leu	905	910	915

Ser Thr Thr Ile

<210> 71  
 <211> 3877  
 <212> DNA  
 <213> Homo Sapien

<400> 71  
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 aagaccatac gtccccgggc aggggtgaca acaggtgtca tctttttgat 100  
 ctcggtgtgtg gctgccttcc tatttcaagg aaagacgcca aggtaatttt 150  
 gaccagagg agcaatgatg tagccacctc ctaaccttcc cttcttgaac 200  
 cccagttat gccaggattt actagagagt gtcaactcaa ccagcaagcg 250  
 gtccttcgg ctttaacttgt ggttgaggga gagaaccttt gtggggctgc 300  
 gttctcttag cagtgtcag aagtgacttg cctgaggggtg gaccagaaga 350  
 aaggaaagg cccctcttgc tgttggtgc acatcaggaa ggctgtgatg 400  
 ggaatgaagg tgaaaacttg gagatttcac ttcagtcatt gcttctgcct 450  
 gcaagatcat cctttaaaag tagagaagct gctctgtgtg gtggttaact 500  
 ccaagaggca gaactcgttc tagaaggaaa tggatgcaag cagctccggg 550  
 ggccccaac gcatgcttcc tgtggtctag cccaggggaag cccttccgtg 600  
 ggggccccgg ctttgaggga tgccaccggt tctggacgca tggctgattc 650  
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tgggttttgct ggtgctcctc tgctgtgcta tctctgtcct gtacatgttg 750  
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 agccagcgat gctgctggcc tgggtctgga caggagcccc ccagagaaaa 1000  
 cccaggccga cctcctggcc ttctgcaact cgcagggtgga caaggcagag 1050  
 gtgaatgctg gcgtcaagct ggccacagag tatgcagcag tgcctttcga 1100  
 tagctttact ctacagaagg tgtaccagct ggagactggc cttaccgcgc 1150  
 accccgagga gaagcctgtg aggaaggaca agcgggatga gttgggtggaa 1200  
 gccattgaat cagccttggga gaccctgaac aatcctgcag agaacagccc 1250  
 caatcacctg ccttacacgg cctctgattt catagaaggg atctaccgaa 1300  
 cagaaaggga caaagggaca ttgtatgagc tcaccttcaa aggggaccac 1350  
 aaacacgaat tcaaacggct catcttattt cgaccattca gcccattcat 1400  
 gaaagtgaat aatgaaaagc tcaacatggc caacacgctt atcaatgtta 1450  
 tcgtgcctct agcaaaaagg gtggacaagt tccggcagtt catgcagaat 1500  
 ttcagggaga tgtgcattga gcaggatggg agagtccatc tcaactgttg 1550  
 ttactttggg aaagaagaaa taaatgaagt caaaggaata cttgaaaaca 1600  
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 gggaaggaat ggtttgtact aatacagacg tacagatact ttctctgaag 3150  
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 cttacctgtt taaataaacc aaagtatacc gtgtgaacca aacaatctct 3350  
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 gagaaaaata tatatatata tatatatatt gtgaaagatc aatccatctg 3450  
 ccagaatcta gtgggatgga agtttttgct acatgttatc cccccaggc 3500  
 cagggtgaag taactgaatt attttttaaa ttaagcagtt ctactcaatc 3550

accaagatgc ttctgaaaat tgcattttat taccatttca aactattttt 3600  
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 tattagccag caccagatgc atgagctaata tatctctttg agtccttgct 3700  
 tctgtttgct cacagtaaac tcattgttta aaagcttcaa gaacattcaa 3750  
 gctgttggtg tgttaaaaaa tgcattgtat tgatttgtac tggtagttta 3800  
 tgaaatttaa ttaaaacaca ggccatgaat ggaaggtggg attgcacagc 3850  
 taataaaata tgatttgtgg atatgaa 3877

<210> 72  
 <211> 532  
 <212> PRT  
 <213> Homo Sapien

<400> 72  
 Met Met Met Val Arg Arg Gly Leu Leu Ala Trp Ile Ser Arg Val  
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 Val Val Leu Leu Val Leu Leu Cys Cys Ala Ile Ser Val Leu Tyr  
 20 25 30  
 Met Leu Ala Cys Thr Pro Lys Gly Asp Glu Glu Gln Leu Ala Leu  
 35 40 45  
 Pro Arg Ala Asn Ser Pro Thr Gly Lys Glu Gly Tyr Gln Ala Val  
 50 55 60  
 Leu Gln Glu Trp Glu Glu Gln His Arg Asn Tyr Val Ser Ser Leu  
 65 70 75  
 Lys Arg Gln Ile Ala Gln Leu Lys Glu Glu Leu Gln Glu Arg Ser  
 80 85 90  
 Glu Gln Leu Arg Asn Gly Gln Tyr Gln Ala Ser Asp Ala Ala Gly  
 95 100 105  
 Leu Gly Leu Asp Arg Ser Pro Pro Glu Lys Thr Gln Ala Asp Leu  
 110 115 120  
 Leu Ala Phe Leu His Ser Gln Val Asp Lys Ala Glu Val Asn Ala  
 125 130 135  
 Gly Val Lys Leu Ala Thr Glu Tyr Ala Ala Val Pro Phe Asp Ser  
 140 145 150  
 Phe Thr Leu Gln Lys Val Tyr Gln Leu Glu Thr Gly Leu Thr Arg  
 155 160 165  
 His Pro Glu Glu Lys Pro Val Arg Lys Asp Lys Arg Asp Glu Leu  
 170 175 180  
 Val Glu Ala Ile Glu Ser Ala Leu Glu Thr Leu Asn Asn Pro Ala

	185		190		195
Glu Asn Ser Pro	Asn His Arg Pro Tyr	Thr Ala Ser Asp Phe	Ile		
	200	205	210		
Glu Gly Ile Tyr	Arg Thr Glu Arg Asp	Lys Gly Thr Leu Tyr	Glu		
	215	220	225		
Leu Thr Phe Lys	Gly Asp His Lys His	Glu Phe Lys Arg Leu	Ile		
	230	235	240		
Leu Phe Arg Pro	Phe Ser Pro Ile Met	Lys Val Lys Asn Glu	Lys		
	245	250	255		
Leu Asn Met Ala	Asn Thr Leu Ile Asn	Val Ile Val Pro Leu	Ala		
	260	265	270		
Lys Arg Val Asp	Lys Phe Arg Gln Phe	Met Gln Asn Phe Arg	Glu		
	275	280	285		
Met Cys Ile Glu	Gln Asp Gly Arg Val	His Leu Thr Val Val	Tyr		
	290	295	300		
Phe Gly Lys Glu	Glu Ile Asn Glu Val	Lys Gly Ile Leu Glu	Asn		
	305	310	315		
Thr Ser Lys Ala	Ala Asn Phe Arg Asn	Phe Thr Phe Ile Gln	Leu		
	320	325	330		
Asn Gly Glu Phe	Ser Arg Gly Lys Gly	Leu Asp Val Gly Ala	Arg		
	335	340	345		
Phe Trp Lys Gly	Ser Asn Val Leu Leu	Phe Phe Cys Asp Val	Asp		
	350	355	360		
Ile Tyr Phe Thr	Ser Glu Phe Leu Asn	Thr Cys Arg Leu Asn	Thr		
	365	370	375		
Gln Pro Gly Lys	Lys Val Phe Tyr Pro	Val Leu Phe Ser Gln	Tyr		
	380	385	390		
Asn Pro Gly Ile	Ile Tyr Gly His His	Asp Ala Val Pro Pro	Leu		
	395	400	405		
Glu Gln Gln Leu	Val Ile Lys Lys Glu	Thr Gly Phe Trp Arg	Asp		
	410	415	420		
Phe Gly Phe Gly	Met Thr Cys Gln Tyr	Arg Ser Asp Phe Ile	Asn		
	425	430	435		
Ile Gly Gly Phe	Asp Leu Asp Ile Lys	Gly Trp Gly Gly Glu	Asp		
	440	445	450		
Val His Leu Tyr	Arg Lys Tyr Leu His	Ser Asn Leu Ile Val	Val		
	455	460	465		
Arg Thr Pro Val	Arg Gly Leu Phe His	Leu Trp His Glu	Lys Arg		

470	475	480
Cys Met Asp Glu Leu Thr Pro Glu Gln Tyr Lys Met Cys Met Gln		
485	490	495
Ser Lys Ala Met Asn Glu Ala Ser His Gly Gln Leu Gly Met Leu		
500	505	510
Val Phe Arg His Glu Ile Glu Ala His Leu Arg Lys Gln Lys Gln		
515	520	525
Lys Thr Ser Ser Lys Lys Thr		
530		

<210> 73  
 <211> 1701  
 <212> DNA  
 <213> Homo Sapien  
 <220>  
 <221> unsure  
 <222> 1528  
 <223> unknown base

<400> 73  
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 tgtcctgggg atccagaaac ccatgatacc ctactgaaca ccgaatcccc 100  
 tggaagccca cagagacaga gacagcaaga gaagcagaga taaatacact 150  
 cagccagga gctcgctcgc tctctctctc tctctctcac tcttccctcc 200  
 ctctctctct gctgtccta gtcctctagt cctcaaattc ccagtcccct 250  
 gcaccccttc ctgggacact atgttggttct ccgccctcct gctggagggtg 300  
 atttggatcc tggctgcaga tgggggtcaa cactggacgt atgagggccc 350  
 acatggtcag gaccattggc cagcctctta ccctgagtgt ggaaacaatg 400  
 cccagtgcgc catcgatatt cagacagaca gtgtgacatt tgaccctgat 450  
 ttgcttgctc tgcagcccca cggatatgac cagcctggca ccgagccttt 500  
 ggacctgcac aacaatggcc acacagtgca actctctctg ccctctaccc 550  
 tgtatctggg tggacttccc cgaaaatatg tagctgcca gctccacctg 600  
 cactgggggtc agaaaggatc cccagggggg tcagaacacc agatcaacag 650  
 tgaagccaca tttgcagagc tccacattgt acattatgac tctgattcct 700  
 atgacagctt gagtgaggct gctgagaggc ctcagggcct ggctgtcctg 750  
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gaaatcgctg tgttgtaaat gcagaganca aactctgttt agttgcaggg 1550  
gaagtttggg atatacccca aagtcctcta cccctcact tttatggccc 1600  
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t 1701

<210> 74  
<211> 337  
<212> PRT  
<213> Homo Sapien

<400> 74  
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Ala Asp Gly Gly Gln His Trp Thr Tyr Glu Gly Pro His Gly Gln  
20 25 30  
Asp His Trp Pro Ala Ser Tyr Pro Glu Cys Gly Asn Asn Ala Gln  
35 40 45  
Ser Pro Ile Asp Ile Gln Thr Asp Ser Val Thr Phe Asp Pro Asp  
50 55 60  
Leu Pro Ala Leu Gln Pro His Gly Tyr Asp Gln Pro Gly Thr Glu  
65 70 75



Pro	Leu	Asp	Leu	His	Asn	Asn	Gly	His	Thr	Val	Gln	Leu	Ser	Leu		80	85	90
Pro	Ser	Thr	Leu	Tyr	Leu	Gly	Gly	Leu	Pro	Arg	Lys	Tyr	Val	Ala		95	100	105
Ala	Gln	Leu	His	Leu	His	Trp	Gly	Gln	Lys	Gly	Ser	Pro	Gly	Gly		110	115	120
Ser	Glu	His	Gln	Ile	Asn	Ser	Glu	Ala	Thr	Phe	Ala	Glu	Leu	His		125	130	135
Ile	Val	His	Tyr	Asp	Ser	Asp	Ser	Tyr	Asp	Ser	Leu	Ser	Glu	Ala		140	145	150
Ala	Glu	Arg	Pro	Gln	Gly	Leu	Ala	Val	Leu	Gly	Ile	Leu	Ile	Glu		155	160	165
Val	Gly	Glu	Thr	Lys	Asn	Ile	Ala	Tyr	Glu	His	Ile	Leu	Ser	His		170	175	180
Leu	His	Glu	Val	Arg	His	Lys	Asp	Gln	Lys	Thr	Ser	Val	Pro	Pro		185	190	195
Phe	Asn	Leu	Arg	Glu	Leu	Leu	Pro	Lys	Gln	Leu	Gly	Gln	Tyr	Phe		200	205	210
Arg	Tyr	Asn	Gly	Ser	Leu	Thr	Thr	Pro	Pro	Cys	Tyr	Gln	Ser	Val		215	220	225
Leu	Trp	Thr	Val	Phe	Tyr	Arg	Arg	Ser	Gln	Ile	Ser	Met	Glu	Gln		230	235	240
Leu	Glu	Lys	Leu	Gln	Gly	Thr	Leu	Phe	Ser	Thr	Glu	Glu	Glu	Pro		245	250	255
Ser	Lys	Leu	Leu	Val	Gln	Asn	Tyr	Arg	Ala	Leu	Gln	Pro	Leu	Asn		260	265	270
Gln	Arg	Met	Val	Phe	Ala	Ser	Phe	Ile	Gln	Ala	Gly	Ser	Ser	Tyr		275	280	285
Thr	Thr	Gly	Glu	Met	Leu	Ser	Leu	Gly	Val	Gly	Ile	Leu	Val	Gly		290	295	300
Cys	Leu	Cys	Leu	Leu	Leu	Ala	Val	Tyr	Phe	Ile	Ala	Arg	Lys	Ile		305	310	315
Arg	Lys	Lys	Arg	Leu	Glu	Asn	Arg	Lys	Ser	Val	Val	Phe	Thr	Ser		320	325	330
Ala	Gln	Ala	Thr	Thr	Glu	Ala										335		

<210> 75  
 <211> 1743  
 <212> DNA

<213> Homo Sapien

<400> 75

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cttatccatc aacatgaaga atgtcctaca atggactcca ccagaggggtc 150  
ttcaaggagt taaagttact tacactgtgc agtatttcat cacaaattgg 200  
cccaccagag gtggcactga ctacagatga gaagtccatt tctgttgctc 250  
tgacagctcc agagaagtgg aagagaaatc cagaagacct tcctgtttcc 300  
atgcaacaaa tatactccaa tctgaagtat aacgtgtctg tgttgaatac 350  
taaatacaaac agaacgtggg ccagtggtgt gaccaaccac acgctgggtgc 400  
tcacctgggt ggagccgaac actctttact gcgtacacgt ggagtccttc 450  
gtcccagggc cccctcgccg tgctcagcct tctgagaagc agtgtgccag 500  
gactttgaaa gatcaatcat cagagttcaa ggctaaaatc atcttctggg 550  
atgttttgcc catatctatt accgtgtttc ttttttctgt gatgggctat 600  
tccatctacc gatatatcca cgttggcaaa gagaaacacc cagcaaattt 650  
gattttgatt tatggaaatg aatttgacaa aagattcttt gtgcctgctg 700  
aaaaaatcgt gattaacttt atcacctca atatctcgga tgattctaaa 750  
atttctcatc aggatatgag tttactggga aaaagcagtg atgtatccag 800  
ccttaatgat cctcagccca gcgggaacct gaggccccct caggaggaag 850  
aggaggtgaa acatttaggg tatgcttcgc atttgatgga aattttttgt 900  
gactctgaag aaaacacgga aggtacttct ctacccagc aagagtcctt 950  
cagcagaaca atacccccgg ataaaacagt cattgaatat gaatatgatg 1000  
tcagaaccac tgacatttgt gcggggcctg aagagcagga gctcagtttg 1050  
caggaggagg tgtccacaca aggaacatta ttggagtcgc aggcagcggt 1100  
ggcagtcttg ggcccgcaaa cgttacagta ctcatacc cctcagctcc 1150  
aagacttaga cccctggcg caggagcaca cagactcgga ggaggggccc 1200  
gaggaagagc catcgacgac cctggtcgac tgggatcccc aaactggcag 1250  
gctgtgtatt ccttcgctgt ccagcttcga ccaggattca gagggctgcg 1300  
agccttctga gggggatggg ctcgagagg aggtcttct atctagactc 1350

tatgaggagc cggctccaga caggccacca ggagaaaatg aaacctatct 1400  
catgcaattc atggaggaat ggggggttata tgtgcagatg gaaaactgat 1450  
gccaacactt ccttttgcct tttgtttcct gtgcaaacia gtgagtcacc 1500  
cctttgatcc cagccataaa gtacctggga tgaaagaagt tttttccagt 1550  
ttgtcagtgt ctgtgagaat tacttatttc ttttctctat tctcatagca 1600  
cgtgtgtgat tggttcatgc atgtaggtct cttacaatg atggtgggcc 1650  
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aatgttttgc cagactgggt gcagaattta ttcaggtggg tgt 1743

<210> 76  
<211> 442  
<212> PRT  
<213> Homo Sapien

<400> 76  
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Leu Leu Thr Leu Cys Ser Ile Ser Ser Gln Ile Gly Pro Pro Glu  
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Val Ala Leu Thr Thr Asp Glu Lys Ser Ile Ser Val Val Leu Thr  
35 40 45  
Ala Pro Glu Lys Trp Lys Arg Asn Pro Glu Asp Leu Pro Val Ser  
50 55 60  
Met Gln Gln Ile Tyr Ser Asn Leu Lys Tyr Asn Val Ser Val Leu  
65 70 75  
Asn Thr Lys Ser Asn Arg Thr Trp Ser Gln Cys Val Thr Asn His  
80 85 90  
Thr Leu Val Leu Thr Trp Leu Glu Pro Asn Thr Leu Tyr Cys Val  
95 100 105  
His Val Glu Ser Phe Val Pro Gly Pro Pro Arg Arg Ala Gln Pro  
110 115 120  
Ser Glu Lys Gln Cys Ala Arg Thr Leu Lys Asp Gln Ser Ser Glu  
125 130 135  
Phe Lys Ala Lys Ile Ile Phe Trp Tyr Val Leu Pro Ile Ser Ile  
140 145 150  
Thr Val Phe Leu Phe Ser Val Met Gly Tyr Ser Ile Tyr Arg Tyr  
155 160 165  
Ile His Val Gly Lys Glu Lys His Pro Ala Asn Leu Ile Leu Ile  
170 175 180

Tyr	Gly	Asn	Glu	Phe	Asp	Lys	Arg	Phe	Phe	Val	Pro	Ala	Glu	Lys	185	190	195
Ile	Val	Ile	Asn	Phe	Ile	Thr	Leu	Asn	Ile	Ser	Asp	Asp	Ser	Lys	200	205	210
Ile	Ser	His	Gln	Asp	Met	Ser	Leu	Leu	Gly	Lys	Ser	Ser	Asp	Val	215	220	225
Ser	Ser	Leu	Asn	Asp	Pro	Gln	Pro	Ser	Gly	Asn	Leu	Arg	Pro	Pro	230	235	240
Gln	Glu	Glu	Glu	Glu	Val	Lys	His	Leu	Gly	Tyr	Ala	Ser	His	Leu	245	250	255
Met	Glu	Ile	Phe	Cys	Asp	Ser	Glu	Glu	Asn	Thr	Glu	Gly	Thr	Ser	260	265	270
Leu	Thr	Gln	Gln	Glu	Ser	Leu	Ser	Arg	Thr	Ile	Pro	Pro	Asp	Lys	275	280	285
Thr	Val	Ile	Glu	Tyr	Glu	Tyr	Asp	Val	Arg	Thr	Thr	Asp	Ile	Cys	290	295	300
Ala	Gly	Pro	Glu	Glu	Gln	Glu	Leu	Ser	Leu	Gln	Glu	Glu	Val	Ser	305	310	315
Thr	Gln	Gly	Thr	Leu	Leu	Glu	Ser	Gln	Ala	Ala	Leu	Ala	Val	Leu	320	325	330
Gly	Pro	Gln	Thr	Leu	Gln	Tyr	Ser	Tyr	Thr	Pro	Gln	Leu	Gln	Asp	335	340	345
Leu	Asp	Pro	Leu	Ala	Gln	Glu	His	Thr	Asp	Ser	Glu	Glu	Gly	Pro	350	355	360
Glu	Glu	Glu	Pro	Ser	Thr	Thr	Leu	Val	Asp	Trp	Asp	Pro	Gln	Thr	365	370	375
Gly	Arg	Leu	Cys	Ile	Pro	Ser	Leu	Ser	Ser	Phe	Asp	Gln	Asp	Ser	380	385	390
Glu	Gly	Cys	Glu	Pro	Ser	Glu	Gly	Asp	Gly	Leu	Gly	Glu	Glu	Gly	395	400	405
Leu	Leu	Ser	Arg	Leu	Tyr	Glu	Glu	Pro	Ala	Pro	Asp	Arg	Pro	Pro	410	415	420
Gly	Glu	Asn	Glu	Thr	Tyr	Leu	Met	Gln	Phe	Met	Glu	Glu	Trp	Gly	425	430	435
Leu	Tyr	Val	Gln	Met	Glu	Asn									440		

<210> 77  
 <211> 1636  
 <212> DNA

<213> Homo Sapien

<400> 77

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ctctgtgggt tgctggcagc caccttgatc caagccaccc tcagtccac 150  
tgcagttctc atcctcggcc caaaagtcac caaagaaaag ctgacacagg 200  
agctgaagga ccacaacgcc accagcatcc tgcagcagct gccgctgctc 250  
agtgccatgc gggaaaagcc agccggaggc atccctgtgc tgggcagcct 300  
ggtgaacacc gtctgaagc acatcatctg gctgaaggtc atcacagcta 350  
acatcctcca gctgcagggtg aagccctcgg ccaatgacca ggagctgcta 400  
gtcaagatcc ccttgacat ggtggctgga ttcaacacgc ccttggtcaa 450  
gaccatcgtg gagttccaca tgacgactga ggccaagcc accatccgca 500  
tggacaccag tgcaagtggc cccaccgcc tggtcctcag tgactgtgcc 550  
accagccatg ggagcctgcg catccaactg ctgtataagc tctccttctt 600  
ggtgaacgcc ttagctaagc aggtcatgaa cctcctagtg ccatccctgc 650  
ccaatctagt gaaaaaccag ctgtgtcccg tgatcgaggc ttccttcaat 700  
ggcatgtatg cagacctcct gcagctgggtg aagggtgcca tttccctcag 750  
cattgaccgt ctggagtttg accttctgta tcctgccatc aagggtgaca 800  
ccattcagct ctacctgggg gccaaagttgt tggactcaca gggaaagggtg 850  
accaagtggg tcaataactc tgcagcttcc ctgacaatgc ccaccctgga 900  
caacatcccg ttcagcctca tcgtgagtca ggacgtgggtg aaagctgcag 950  
tggctgctgt gctctctcca gaagaattca tggtcctggt ggactctgtg 1000  
cttctgaga gtgcccatcg gctgaagtca agcatcgggc tgatcaatga 1050  
aaaggctgca gataagctgg gatctacca gatcgtgaag atcctaactc 1100  
aggacactcc cgagtttttt atagaccaag gccatgcca ggtggcccaa 1150  
ctgatcgtgc tggaaagtgt tccctccagt gaagccctcc gccctttgtt 1200  
cacctggggc atcgaagcca gctcggaagc tcagttttac accaaagggtg 1250  
accaacttat actcaacttg aataacatca gctctgatcg gatccagctg 1300  
atgaactctg ggattggctg gttccaacct gatgttctga aaaacatcat 1350  
cactgagatc atccactcca tctgctgcc gaaccagaat ggcaaattaa 1400

gatctgggggt cccagtgtca ttggtgaagg ccttgggatt cgaggcagct 1450  
gagtcctcac tgaccaagga tgcccttgtg cttactccag cctccttgtg 1500  
gaaaccacgc tctcctgtct cccagtgaag acttggatgg cagccatcag 1550  
ggaaggctgg gtcccagctg ggagtatggg tgtgagctct atagaccatc 1600  
cctctctgca atcaataaac acttgctgtg gaaaaa 1636

<210> 78  
<211> 484  
<212> PRT  
<213> Homo Sapien

<400> 78  
Met Ala Gly Pro Trp Thr Phe Thr Leu Leu Cys Gly Leu Leu Ala  
1 5 10 15  
Ala Thr Leu Ile Gln Ala Thr Leu Ser Pro Thr Ala Val Leu Ile  
20 25 30  
Leu Gly Pro Lys Val Ile Lys Glu Lys Leu Thr Gln Glu Leu Lys  
35 40 45  
Asp His Asn Ala Thr Ser Ile Leu Gln Gln Leu Pro Leu Leu Ser  
50 55 60  
Ala Met Arg Glu Lys Pro Ala Gly Gly Ile Pro Val Leu Gly Ser  
65 70 75  
Leu Val Asn Thr Val Leu Lys His Ile Ile Trp Leu Lys Val Ile  
80 85 90  
Thr Ala Asn Ile Leu Gln Leu Gln Val Lys Pro Ser Ala Asn Asp  
95 100 105  
Gln Glu Leu Leu Val Lys Ile Pro Leu Asp Met Val Ala Gly Phe  
110 115 120  
Asn Thr Pro Leu Val Lys Thr Ile Val Glu Phe His Met Thr Thr  
125 130 135  
Glu Ala Gln Ala Thr Ile Arg Met Asp Thr Ser Ala Ser Gly Pro  
140 145 150  
Thr Arg Leu Val Leu Ser Asp Cys Ala Thr Ser His Gly Ser Leu  
155 160 165  
Arg Ile Gln Leu Leu Tyr Lys Leu Ser Phe Leu Val Asn Ala Leu  
170 175 180  
Ala Lys Gln Val Met Asn Leu Leu Val Pro Ser Leu Pro Asn Leu  
185 190 195  
Val Lys Asn Gln Leu Cys Pro Val Ile Glu Ala Ser Phe Asn Gly

				200					205					210
Met	Tyr	Ala	Asp	Leu	Leu	Gln	Leu	Val	Lys	Val	Pro	Ile	Ser	Leu
				215					220					225
Ser	Ile	Asp	Arg	Leu	Glu	Phe	Asp	Leu	Leu	Tyr	Pro	Ala	Ile	Lys
				230					235					240
Gly	Asp	Thr	Ile	Gln	Leu	Tyr	Leu	Gly	Ala	Lys	Leu	Leu	Asp	Ser
				245					250					255
Gln	Gly	Lys	Val	Thr	Lys	Trp	Phe	Asn	Asn	Ser	Ala	Ala	Ser	Leu
				260					265					270
Thr	Met	Pro	Thr	Leu	Asp	Asn	Ile	Pro	Phe	Ser	Leu	Ile	Val	Ser
				275					280					285
Gln	Asp	Val	Val	Lys	Ala	Ala	Val	Ala	Ala	Val	Leu	Ser	Pro	Glu
				290					295					300
Glu	Phe	Met	Val	Leu	Leu	Asp	Ser	Val	Leu	Pro	Glu	Ser	Ala	His
				305					310					315
Arg	Leu	Lys	Ser	Ser	Ile	Gly	Leu	Ile	Asn	Glu	Lys	Ala	Ala	Asp
				320					325					330
Lys	Leu	Gly	Ser	Thr	Gln	Ile	Val	Lys	Ile	Leu	Thr	Gln	Asp	Thr
				335					340					345
Pro	Glu	Phe	Phe	Ile	Asp	Gln	Gly	His	Ala	Lys	Val	Ala	Gln	Leu
				350					355					360
Ile	Val	Leu	Glu	Val	Phe	Pro	Ser	Ser	Glu	Ala	Leu	Arg	Pro	Leu
				365					370					375
Phe	Thr	Leu	Gly	Ile	Glu	Ala	Ser	Ser	Glu	Ala	Gln	Phe	Tyr	Thr
				380					385					390
Lys	Gly	Asp	Gln	Leu	Ile	Leu	Asn	Leu	Asn	Asn	Ile	Ser	Ser	Asp
				395					400					405
Arg	Ile	Gln	Leu	Met	Asn	Ser	Gly	Ile	Gly	Trp	Phe	Gln	Pro	Asp
				410					415					420
Val	Leu	Lys	Asn	Ile	Ile	Thr	Glu	Ile	Ile	His	Ser	Ile	Leu	Leu
				425					430					435
Pro	Asn	Gln	Asn	Gly	Lys	Leu	Arg	Ser	Gly	Val	Pro	Val	Ser	Leu
				440					445					450
Val	Lys	Ala	Leu	Gly	Phe	Glu	Ala	Ala	Glu	Ser	Ser	Leu	Thr	Lys
				455					460					465
Asp	Ala	Leu	Val	Leu	Thr	Pro	Ala	Ser	Leu	Trp	Lys	Pro	Ser	Ser
				470					475					480
Pro	Val	Ser	Gln											

<210> 79  
<211> 1475  
<212> DNA  
<213> Homo Sapien

<400> 79  
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tcaaggagca agagcttcag cctgaagaca agggagcagt ccctgaagac 100  
gcttctactg agaggtctgc catggcctct cttggcctcc aacttgtggg 150  
ctacatccta ggccttctgg ggcttttggg cacactgggt gccatgctgc 200  
tccccagctg gaaaacaagt tcttatgtcg gtgccagcat tgtgacagca 250  
gttggtctct ccaagggcct ctggatggaa tgtgccacac acagcacagg 300  
catcaccag tgtgacatct atagcacctt tctgggcctg cccgctgaca 350  
tccaggtgc ccaggccatg atggtgacat ccagtgcaat ctccctccctg 400  
gcctgcatta tctctgtggt gggcatgaga tgcacagtct tctgccagga 450  
atcccagacc aaagacagag tggcggtagc aggtggagtc tttttcatcc 500  
ttggaggcct cctgggattc attcctgttg cctggaatct tcatgggatc 550  
ctacgggact tctactcacc actggtgcct gacagcatga aatttgagat 600  
tggagaggct ctttacttgg gcattatttc ttcctgttc tccctgatag 650  
ctggaatcat cctctgcttt tctgtctcat cccagagaaa tcgctccaac 700  
tactacgatg cctaccaagc ccaacctctt gccacaagga gctctccaag 750  
gcctggtcaa cctcccaaag tcaagagtga gttcaattcc tacagcctga 800  
cagggtatgt gtgaagaacc aggggccaga gctgggggggt ggctgggtct 850  
gtgaaaaaca gtggacagca ccccgagggc cacaggtgag ggacactacc 900  
actggatcgt gtcagaagg gctgctgagg atagactgac tttggccatt 950  
ggattgagca aaggcagaaa tgggggctag tgtaacagca tgcaggttga 1000  
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agccaggact cagaggatcc ctttgccctc tggtttacct gggactccat 1150  
cccaaacc actaatcaca tccactgac tgacctctg tgatcaaaga 1200  
ccctctctct ggctgaggtt ggctcttagc tcattgctgg ggatgggaag 1250



gagaagcagt ggcttttgtg ggcattgctc taacctactt ctcaagcttc 1300  
 cctccaaaga aactgattgg ccctggaacc tccatccac tcttggtatg 1350  
 actccacagt gtccagacta atttgtgcat gaactgaaat aaaaccatcc 1400  
 tacggtatcc agggaacaga aagcaggatg caggatggga ggacaggaag 1450  
 gcagcctggg acatttaaaa aaata 1475

<210> 80  
 <211> 230  
 <212> PRT  
 <213> Homo Sapien

<400> 80  
 Met Ala Ser Leu Gly Leu Gln Leu Val Gly Tyr Ile Leu Gly Leu  
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 Leu Gly Leu Leu Gly Thr Leu Val Ala Met Leu Leu Pro Ser Trp  
                     20                    25                    30  
 Lys Thr Ser Ser Tyr Val Gly Ala Ser Ile Val Thr Ala Val Gly  
                     35                    40                    45  
 Phe Ser Lys Gly Leu Trp Met Glu Cys Ala Thr His Ser Thr Gly  
                     50                    55                    60  
 Ile Thr Gln Cys Asp Ile Tyr Ser Thr Leu Leu Gly Leu Pro Ala  
                     65                    70                    75  
 Asp Ile Gln Ala Ala Gln Ala Met Met Val Thr Ser Ser Ala Ile  
                     80                    85                    90  
 Ser Ser Leu Ala Cys Ile Ile Ser Val Val Gly Met Arg Cys Thr  
                     95                    100                    105  
 Val Phe Cys Gln Glu Ser Arg Ala Lys Asp Arg Val Ala Val Ala  
                     110                    115                    120  
 Gly Gly Val Phe Phe Ile Leu Gly Gly Leu Leu Gly Phe Ile Pro  
                     125                    130                    135  
 Val Ala Trp Asn Leu His Gly Ile Leu Arg Asp Phe Tyr Ser Pro  
                     140                    145                    150  
 Leu Val Pro Asp Ser Met Lys Phe Glu Ile Gly Glu Ala Leu Tyr  
                     155                    160                    165  
 Leu Gly Ile Ile Ser Ser Leu Phe Ser Leu Ile Ala Gly Ile Ile  
                     170                    175                    180  
 Leu Cys Phe Ser Cys Ser Ser Gln Arg Asn Arg Ser Asn Tyr Tyr  
                     185                    190                    195  
 Asp Ala Tyr Gln Ala Gln Pro Leu Ala Thr Arg Ser Ser Pro Arg  
                     200                    205                    210

Pro Gly Gln Pro Pro Lys Val Lys Ser Glu Phe Asn Ser Tyr Ser  
 215 220 225

Leu Thr Gly Tyr Val  
 230

<210> 81  
 <211> 1732  
 <212> DNA  
 <213> Homo Sapien

<400> 81  
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 tctctccctc ctttccccgc gttctctttc cacctttctc ttcttccac 100  
 cttagacctc ccttccctgcc ctcccttccct gccacacgct gcttccctggc 150  
 ccttctccga ccccgctcta gcagcagacc tccctggggtc tgtggggtga 200  
 tctgtggccc ctgtgcctcc gtgtccctttt cgtctccctt cctcccgact 250  
 ccgctcccgg accacgggcc tgacctggg gaaaggatgg ttcccagagt 300  
 gagggctctc tccctccttg tgggactcgc gctgctctgg ttccccctgg 350  
 actcccacgc tcgagccccgc ccagacatgt tctgcctttt ccatgggaag 400  
 agatactccc ccggcgagag ctggcacccc tacttggagc cacaaggcct 450  
 gatgtactgc ctgcgctgta cctgctcaga gggcgcccat gtgagttgtt 500  
 accgcctcca ctgtccgcct gtccactgcc cccagcctgt gacggagcca 550  
 cagcaatgct gtcccaagtg tgtggaacct cacactccct ctggactccg 600  
 ggccccacca aagtccctgcc agcacacagg gacctgtac caacacggag 650  
 agatcttcag tgcccatgag ctgttccctt cccgcctgcc caaccagtgt 700  
 gtccctctgca gctgcacaga gggccagatc tactgcggcc tcacaacctg 750  
 ccccgaaacca ggctgcccag caccctccct actgccagac tccctgctgcc 800  
 aagcctgcaa agatgaggca agtgagcaat cggatgaaga ggacagtgtg 850  
 cagtcgctcc atgggggtgag acatccctcag gatccatgtt ccagtgatgc 900  
 tgggagaaaag agaggcccgg gcaccccagc cccactggc ctcagcgccc 950  
 ctctgagctt catccctcgc cacttcagac ccaagggagc aggcagcaca 1000  
 actgtcaaga tcgtccctgaa ggagaaacat aagaaagcct gtgtgcatgg 1050  
 cgggaagacg tactccacg gggaggtgtg gcacccggcc ttccgtgcct 1100  
 tcggccccctt gccctgcac ctatgcacct gtgaggatgg ccgccaggac 1150

tgccagcgtg tgacctgtcc caccgagtag ccttgccgtc accccgagaa 1200  
 agtggctggg aagtgtgca agatttgccc agaggacaaa gcagaccctg 1250  
 gccacagtga gatcagttct accaggtgtc ccaaggcacc gggccgggtc 1300  
 ctcgtccaca catcgggtatc cccaagccca gacaacctgc gtcgctttgc 1350  
 cctggaacac gaggcctcgg acttggtgga gatctacctc tggaagctgg 1400  
 taaaagatga ggaaactgag gctcagagag gtgaagtacc tggcccaagg 1450  
 ccacacagcc agaattctcc acttgactca gatcaagaaa gtcaggaagc 1500  
 aagacttcca gaaagaggca cagcacttcc gactgctcgc tggccccac 1550  
 gaaggctcact ggaacgtctt cctagcccag accctggagc tgaaggctcac 1600  
 ggccagtcca gacaaagtga ccaagacata acaaagacct aacagttgca 1650  
 gatatgagct gtataattgt tgttattata tattaataaa taagaagttg 1700  
 cattaccctc aaaaaaaaaa aaaaaaaaaa aa 1732

<210> 82  
 <211> 451  
 <212> PRT  
 <213> Homo Sapien

<400> 82  
 Met Val Pro Glu Val Arg Val Leu Ser Ser Leu Leu Gly Leu Ala  
 1 5 10 15  
 Leu Leu Trp Phe Pro Leu Asp Ser His Ala Arg Ala Arg Pro Asp  
 20 25 30  
 Met Phe Cys Leu Phe His Gly Lys Arg Tyr Ser Pro Gly Glu Ser  
 35 40 45  
 Trp His Pro Tyr Leu Glu Pro Gln Gly Leu Met Tyr Cys Leu Arg  
 50 55 60  
 Cys Thr Cys Ser Glu Gly Ala His Val Ser Cys Tyr Arg Leu His  
 65 70 75  
 Cys Pro Pro Val His Cys Pro Gln Pro Val Thr Glu Pro Gln Gln  
 80 85 90  
 Cys Cys Pro Lys Cys Val Glu Pro His Thr Pro Ser Gly Leu Arg  
 95 100 105  
 Ala Pro Pro Lys Ser Cys Gln His Asn Gly Thr Met Tyr Gln His  
 110 115 120  
 Gly Glu Ile Phe Ser Ala His Glu Leu Phe Pro Ser Arg Leu Pro  
 125 130 135

Asn Gln Cys Val	Leu Cys Ser Cys Thr	Glu Gly Gln Ile Tyr Cys	
	140	145	150
Gly Leu Thr Thr	Cys Pro Glu Pro Gly	Cys Pro Ala Pro Leu Pro	
	155	160	165
Leu Pro Asp Ser	Cys Cys Gln Ala Cys	Lys Asp Glu Ala Ser Glu	
	170	175	180
Gln Ser Asp Glu	Glu Asp Ser Val Gln	Ser Leu His Gly Val Arg	
	185	190	195
His Pro Gln Asp	Pro Cys Ser Ser Asp	Ala Gly Arg Lys Arg Gly	
	200	205	210
Pro Gly Thr Pro	Ala Pro Thr Gly Leu	Ser Ala Pro Leu Ser Phe	
	215	220	225
Ile Pro Arg His	Phe Arg Pro Lys Gly	Ala Gly Ser Thr Thr Val	
	230	235	240
Lys Ile Val Leu	Lys Glu Lys His Lys	Lys Ala Cys Val His Gly	
	245	250	255
Gly Lys Thr Tyr	Ser His Gly Glu Val	Trp His Pro Ala Phe Arg	
	260	265	270
Ala Phe Gly Pro	Leu Pro Cys Ile Leu	Cys Thr Cys Glu Asp Gly	
	275	280	285
Arg Gln Asp Cys	Gln Arg Val Thr Cys	Pro Thr Glu Tyr Pro Cys	
	290	295	300
Arg His Pro Glu	Lys Val Ala Gly Lys	Cys Cys Lys Ile Cys Pro	
	305	310	315
Glu Asp Lys Ala	Asp Pro Gly His Ser	Glu Ile Ser Ser Thr Arg	
	320	325	330
Cys Pro Lys Ala	Pro Gly Arg Val Leu	Val His Thr Ser Val Ser	
	335	340	345
Pro Ser Pro Asp	Asn Leu Arg Arg Phe	Ala Leu Glu His Glu Ala	
	350	355	360
Ser Asp Leu Val	Glu Ile Tyr Leu Trp	Lys Leu Val Lys Asp Glu	
	365	370	375
Glu Thr Glu Ala	Gln Arg Gly Glu Val	Pro Gly Pro Arg Pro His	
	380	385	390
Ser Gln Asn Leu	Pro Leu Asp Ser Asp	Gln Glu Ser Gln Glu Ala	
	395	400	405
Arg Leu Pro Glu	Arg Gly Thr Ala Leu	Pro Thr Ala Arg Trp Pro	
	410	415	420

Pro Arg Arg Ser Leu Glu Arg Leu Pro Ser Pro Asp Pro Gly Ala  
 425 430 435

Glu Gly His Gly Gln Ser Arg Gln Ser Asp Gln Asp Ile Thr Lys  
 440 445 450

Thr

<210> 83

<211> 2052

<212> DNA

<213> Homo Sapien

<400> 83

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aa 2052

<210> 84  
 <211> 500  
 <212> PRT  
 <213> Homo Sapien

<400> 84  
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 Leu Val Gly Glu Asp Ala Ala Phe Ser Cys Phe Leu Ser Pro Lys  
 35 40 45  
 Thr Asn Ala Glu Ala Met Glu Val Arg Phe Phe Arg Gly Gln Phe

				50					55					60	
Ser	Ser	Val	Val	His	Leu	Tyr	Arg	Asp	Gly	Lys	Asp	Gln	Pro	Phe	
				65					70					75	
Met	Gln	Met	Pro	Gln	Tyr	Gln	Gly	Arg	Thr	Lys	Leu	Val	Lys	Asp	
				80					85					90	
Ser	Ile	Ala	Glu	Gly	Arg	Ile	Ser	Leu	Arg	Leu	Glu	Asn	Ile	Thr	
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Val	Leu	Asp	Ala	Gly	Leu	Tyr	Gly	Cys	Arg	Ile	Ser	Ser	Gln	Ser	
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Tyr	Tyr	Gln	Lys	Ala	Ile	Trp	Glu	Leu	Gln	Val	Ser	Ala	Leu	Gly	
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Ser	Val	Pro	Leu	Ile	Ser	Ile	Thr	Gly	Tyr	Val	Asp	Arg	Asp	Ile	
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Gln	Leu	Leu	Cys	Gln	Ser	Ser	Gly	Trp	Phe	Pro	Arg	Pro	Thr	Ala	
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Lys	Trp	Lys	Gly	Pro	Gln	Gly	Gln	Asp	Leu	Ser	Thr	Asp	Ser	Arg	
				170					175					180	
Thr	Asn	Arg	Asp	Met	His	Gly	Leu	Phe	Asp	Val	Glu	Ile	Ser	Leu	
				185					190					195	
Thr	Val	Gln	Glu	Asn	Ala	Gly	Ser	Ile	Ser	Cys	Ser	Met	Arg	His	
				200					205					210	
Ala	His	Leu	Ser	Arg	Glu	Val	Glu	Ser	Arg	Val	Gln	Ile	Gly	Asp	
				215					220					225	
Thr	Phe	Phe	Glu	Pro	Ile	Ser	Trp	His	Leu	Ala	Thr	Lys	Val	Leu	
				230					235					240	
Gly	Ile	Leu	Cys	Cys	Gly	Leu	Phe	Phe	Gly	Ile	Val	Gly	Leu	Lys	
				245					250					255	
Ile	Phe	Phe	Ser	Lys	Phe	Gln	Trp	Lys	Ile	Gln	Ala	Glu	Leu	Asp	
				260					265					270	
Trp	Arg	Arg	Lys	His	Gly	Gln	Ala	Glu	Leu	Arg	Asp	Ala	Arg	Lys	
				275					280					285	
His	Ala	Val	Glu	Val	Thr	Leu	Asp	Pro	Glu	Thr	Ala	His	Pro	Lys	
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Leu	Cys	Val	Ser	Asp	Leu	Lys	Thr	Val	Thr	His	Arg	Lys	Ala	Pro	
				305					310					315	
Gln	Glu	Val	Pro	His	Ser	Glu	Lys	Arg	Phe	Thr	Arg	Lys	Ser	Val	
				320					325					330	
Val	Ala	Ser	Gln	Ser	Phe	Gln	Ala	Gly	Lys	His	Tyr	Trp	Glu	Val	

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Asp Gly Gly His Asn Lys Arg Trp Arg	Val Gly Val Cys Arg Asp	
350	355	360
Asp Val Asp Arg Arg Lys Glu Tyr Val	Thr Leu Ser Pro Asp His	
365	370	375
Gly Tyr Trp Val Leu Arg Leu Asn Gly	Glu His Leu Tyr Phe Thr	
380	385	390
Leu Asn Pro Arg Phe Ile Ser Val Phe	Pro Arg Thr Pro Pro Thr	
395	400	405
Lys Ile Gly Val Phe Leu Asp Tyr Glu	Cys Gly Thr Ile Ser Phe	
410	415	420
Phe Asn Ile Asn Asp Gln Ser Leu Ile	Tyr Thr Leu Thr Cys Arg	
425	430	435
Phe Glu Gly Leu Leu Arg Pro Tyr Ile	Glu Tyr Pro Ser Tyr Asn	
440	445	450
Glu Gln Asn Gly Thr Pro Ile Val Ile	Cys Pro Val Thr Gln Glu	
455	460	465
Ser Glu Lys Glu Ala Ser Trp Gln Arg	Ala Ser Ala Ile Pro Glu	
470	475	480
Thr Ser Asn Ser Glu Ser Ser Ser Gln	Ala Thr Thr Pro Phe Leu	
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Pro Arg Gly Glu Met		
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 <211> 1665  
 <212> DNA  
 <213> Homo Sapien

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 aggatgctcc agtggccaca aacaacccag ctcgggcagt gtgggaggag 300  
 actcgggacc gattccacct ccttggggac ccacatacca agaattgcac 350  
 cctgagcatc agagatgccg gaagaagtga tgcggggaga tacttctttc 400



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 gtgaatgtga cagccttgac ccacaggccc aacatcctca tcccaggcac 500  
 cctggagtcc ggctgcccc agaatctgac ctgctctgtg ccctgggcct 550  
 gtgagcaggg gacacccct atgatctcct ggatagggaac ctccgtgtcc 600  
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 acagacaaat tccta 1665

<210> 86  
 <211> 463  
 <212> PRT  
 <213> Homo Sapien

<400> 86

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Val	Gln	Glu	Gly	Leu	Cys	Val	His	Val	Pro	Cys	Ser	Phe	Ser	Tyr
				35					40					45
Pro	Ser	His	Gly	Trp	Ile	Tyr	Pro	Gly	Pro	Val	Val	His	Gly	Tyr
				50					55					60
Trp	Phe	Arg	Glu	Gly	Ala	Asn	Thr	Asp	Gln	Asp	Ala	Pro	Val	Ala
				65					70					75
Thr	Asn	Asn	Pro	Ala	Arg	Ala	Val	Trp	Glu	Glu	Thr	Arg	Asp	Arg
				80					85					90
Phe	His	Leu	Leu	Gly	Asp	Pro	His	Thr	Lys	Asn	Cys	Thr	Leu	Ser
				95					100					105
Ile	Arg	Asp	Ala	Arg	Arg	Ser	Asp	Ala	Gly	Arg	Tyr	Phe	Phe	Arg
				110					115					120
Met	Glu	Lys	Gly	Ser	Ile	Lys	Trp	Asn	Tyr	Lys	His	His	Arg	Leu
				125					130					135
Ser	Val	Asn	Val	Thr	Ala	Leu	Thr	His	Arg	Pro	Asn	Ile	Leu	Ile
				140					145					150
Pro	Gly	Thr	Leu	Glu	Ser	Gly	Cys	Pro	Gln	Asn	Leu	Thr	Cys	Ser
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Val	Pro	Trp	Ala	Cys	Glu	Gln	Gly	Thr	Pro	Pro	Met	Ile	Ser	Trp
				170					175					180
Ile	Gly	Thr	Ser	Val	Ser	Pro	Leu	Asp	Pro	Ser	Thr	Thr	Arg	Ser
				185					190					195
Ser	Val	Leu	Thr	Leu	Ile	Pro	Gln	Pro	Gln	Asp	His	Gly	Thr	Ser
				200					205					210
Leu	Thr	Cys	Gln	Val	Thr	Phe	Pro	Gly	Ala	Ser	Val	Thr	Thr	Asn
				215					220					225
Lys	Thr	Val	His	Leu	Asn	Val	Ser	Tyr	Pro	Pro	Gln	Asn	Leu	Thr
				230					235					240
Met	Thr	Val	Phe	Gln	Gly	Asp	Gly	Thr	Val	Ser	Thr	Val	Leu	Gly
				245					250					255
Asn	Gly	Ser	Ser	Leu	Ser	Leu	Pro	Glu	Gly	Gln	Ser	Leu	Arg	Leu
				260					265					270
Val	Cys	Ala	Val	Asp	Ala	Val	Asp	Ser	Asn	Pro	Pro	Ala	Arg	Leu
				275					280					285

Ser	Leu	Ser	Trp	Arg	Gly	Leu	Thr	Leu	Cys	Pro	Ser	Gln	Pro	Ser	
				290					295					300	
Asn	Pro	Gly	Val	Leu	Glu	Leu	Pro	Trp	Val	His	Leu	Arg	Asp	Ala	
				305					310					315	
Ala	Glu	Phe	Thr	Cys	Arg	Ala	Gln	Asn	Pro	Leu	Gly	Ser	Gln	Gln	
				320					325					330	
Val	Tyr	Leu	Asn	Val	Ser	Leu	Gln	Ser	Lys	Ala	Thr	Ser	Gly	Val	
				335					340					345	
Thr	Gln	Gly	Val	Val	Gly	Gly	Ala	Gly	Ala	Thr	Ala	Leu	Val	Phe	
				350					355					360	
Leu	Ser	Phe	Cys	Val	Ile	Phe	Val	Val	Val	Arg	Ser	Cys	Arg	Lys	
				365					370					375	
Lys	Ser	Ala	Arg	Pro	Ala	Ala	Gly	Val	Gly	Asp	Thr	Gly	Ile	Glu	
				380					385					390	
Asp	Ala	Asn	Ala	Val	Arg	Gly	Ser	Ala	Ser	Gln	Gly	Pro	Leu	Thr	
				395					400					405	
Glu	Pro	Trp	Ala	Glu	Asp	Ser	Pro	Pro	Asp	Gln	Pro	Pro	Pro	Ala	
				410					415					420	
Ser	Ala	Arg	Ser	Ser	Val	Gly	Glu	Gly	Glu	Leu	Gln	Tyr	Ala	Ser	
				425					430					435	
Leu	Ser	Phe	Gln	Met	Val	Lys	Pro	Trp	Asp	Ser	Arg	Gly	Gln	Glu	
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Ala	Thr	Asp	Thr	Glu	Tyr	Ser	Glu	Ile	Lys	Ile	His	Arg			
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 <211> 1176  
 <212> DNA  
 <213> Homo Sapien

<400> 87  
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 cagaccttct gtgacatgac ctctgggggt ggcggctgga ccctggtggc 350  
 cagcgtgcat gagaatgaca tgcgtgggaa gtgcacggtg ggcgatcgct 400

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ggcacgtgcc caataagtcc cccatgcagc actggagaaa cagctccctg 600
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tgtgggaggg aaccagacc tctcctccca accatgagat cccaaggatg 1100
gagaacaact taccagtag ctagaatgtt aatggcagaa gagaaaacaa 1150
taaatcatat tgactcaaga aaaaaa 1176

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<210> 88
<211> 313
<212> PRT
<213> Homo Sapien

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                      20                   25                   30

Cys Ser Ser Ser Pro Ser Leu Pro Arg Ser Cys Lys Glu Ile Lys
                      35                   40                   45

Asp Glu Cys Pro Ser Ala Phe Asp Gly Leu Tyr Phe Leu Arg Thr
                      50                   55                   60

Glu Asn Gly Val Ile Tyr Gln Thr Phe Cys Asp Met Thr Ser Gly
                      65                   70                   75

Gly Gly Gly Trp Thr Leu Val Ala Ser Val His Glu Asn Asp Met
                      80                   85                   90

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Arg Gly Lys Cys Thr Val Gly Asp Arg Trp Ser Ser Gln Gln Gly	95	100	105
Ser Lys Ala Asp Tyr Pro Glu Gly Asp Gly Asn Trp Ala Asn Tyr	110	115	120
Asn Thr Phe Gly Ser Ala Glu Ala Ala Thr Ser Asp Asp Tyr Lys	125	130	135
Asn Pro Gly Tyr Tyr Asp Ile Gln Ala Lys Asp Leu Gly Ile Trp	140	145	150
His Val Pro Asn Lys Ser Pro Met Gln His Trp Arg Asn Ser Ser	155	160	165
Leu Leu Arg Tyr Arg Thr Asp Thr Gly Phe Leu Gln Thr Leu Gly	170	175	180
His Asn Leu Phe Gly Ile Tyr Gln Lys Tyr Pro Val Lys Tyr Gly	185	190	195
Glu Gly Lys Cys Trp Thr Asp Asn Gly Pro Val Ile Pro Val Val	200	205	210
Tyr Asp Phe Gly Asp Ala Gln Lys Thr Ala Ser Tyr Tyr Ser Pro	215	220	225
Tyr Gly Gln Arg Glu Phe Thr Ala Gly Phe Val Gln Phe Arg Val	230	235	240
Phe Asn Asn Glu Arg Ala Ala Asn Ala Leu Cys Ala Gly Met Arg	245	250	255
Val Thr Gly Cys Asn Thr Glu His His Cys Ile Gly Gly Gly Gly	260	265	270
Tyr Phe Pro Glu Ala Ser Pro Gln Gln Cys Gly Asp Phe Ser Gly	275	280	285
Phe Asp Trp Ser Gly Tyr Gly Thr His Val Gly Tyr Ser Ser Ser	290	295	300
Arg Glu Ile Thr Glu Ala Ala Val Leu Leu Phe Tyr Arg	305	310	

<210> 89  
 <211> 759  
 <212> DNA  
 <213> Homo Sapien

<400> 89  
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 tcagggcttg tgcctctctg ctctctgacg ctctggcg atctggtggt 150

cgtcatcacc ttattctggt cccgggacag caacatacag gcctgcctgc 200  
 ctctcacgtt ccccccgag gagtatgaca agcaggacat tcagctggtg 250  
 gccgcgtct ctgtcacctt gggcctcttt gcagtggagc tggccggttt 300  
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 gggctcactg tagtgcaccc gtggccctgt ccttcttcat attcgagcgt 400  
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 agctgtcact gaaatggctt tattcgtcac cgtctttggg ctgaaaaaga 500  
 aacccttctg attaccttca tgacgggaac ctaaggacga agcctacagg 550  
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 ttcccctcgg aaactgcttc tgctggagga tatgtgttgg aataattacg 650  
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 aaaaaaaaa 759

<210> 90  
 <211> 140  
 <212> PRT  
 <213> Homo Sapien

<400> 90  
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 Ser Asn Ile Gln Ala Cys Leu Pro Leu Thr Phe Thr Pro Glu Glu  
 35 40 45  
 Tyr Asp Lys Gln Asp Ile Gln Leu Val Ala Ala Leu Ser Val Thr  
 50 55 60  
 Leu Gly Leu Phe Ala Val Glu Leu Ala Gly Phe Leu Ser Gly Val  
 65 70 75  
 Ser Met Phe Asn Ser Thr Gln Ser Leu Ile Ser Ile Gly Ala His  
 80 85 90  
 Cys Ser Ala Ser Val Ala Leu Ser Phe Phe Ile Phe Glu Arg Trp  
 95 100 105  
 Glu Cys Thr Thr Tyr Trp Tyr Ile Phe Val Phe Cys Ser Ala Leu  
 110 115 120  
 Pro Ala Val Thr Glu Met Ala Leu Phe Val Thr Val Phe Gly Leu

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<210> 91			
<211> 1871			
<212> DNA			
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<400> 91			
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cctgagcgtg	atgaccacga	gggccagccc	cggccccggg tgcctcgga 200
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ctttggctgg	ggcgacttct	actccaacat	caagacggtg gccctgaacc 400
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<210> 92

<211> 252

<212> PRT

<213> Homo Sapien

<400> 92

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Glu	Asp	Pro	Glu	Arg	Asp	Asp	His	Glu	Gly	Gln	Pro	Arg	Pro	Arg
				35					40					45
Val	Pro	Arg	Lys	Arg	Gly	His	Ile	Ser	Pro	Lys	Ser	Arg	Pro	Met
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Ala	Asn	Ser	Thr	Leu	Leu	Gly	Leu	Leu	Ala	Pro	Pro	Gly	Glu	Ala
				65					70					75
Trp	Gly	Ile	Leu	Gly	Gln	Pro	Pro	Asn	Arg	Pro	Asn	His	Ser	Pro
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Pro	Pro	Ser	Ala	Lys	Val	Lys	Lys	Ile	Phe	Gly	Trp	Gly	Asp	Phe
				95					100					105
Tyr	Ser	Asn	Ile	Lys	Thr	Val	Ala	Leu	Asn	Leu	Leu	Val	Thr	Gly
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Lys	Ile	Val	Asp	His	Gly	Asn	Gly	Thr	Phe	Ser	Val	His	Phe	Gln
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His	Asn	Ala	Thr	Gly	Gln	Gly	Asn	Ile	Ser	Ile	Ser	Leu	Val	Pro
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Pro	Ser	Lys	Ala	Val	Glu	Phe	His	Gln	Glu	Gln	Gln	Ile	Phe	Ile
				155					160					165
Glu	Ala	Lys	Ala	Ser	Lys	Ile	Phe	Asn	Cys	Arg	Met	Glu	Trp	Glu
				170					175					180
Lys	Val	Glu	Arg	Gly	Arg	Arg	Thr	Ser	Leu	Cys	Thr	His	Asp	Pro
				185					190					195
Ala	Lys	Ile	Cys	Ser	Arg	Asp	His	Ala	Gln	Ser	Ser	Ala	Thr	Trp
				200					205					210
Ser	Cys	Ser	Gln	Pro	Phe	Lys	Val	Val	Cys	Val	Tyr	Ile	Ala	Phe
				215					220					225
Tyr	Ser	Thr	Asp	Tyr	Arg	Leu	Val	Gln	Lys	Val	Cys	Pro	Asp	Tyr
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Asn	Tyr	His	Ser	Asp	Thr	Pro	Tyr	Tyr	Pro	Ser	Gly			
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<210> 93

<211> 902

<212> DNA

<213> Homo Sapien

<400> 93

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tttcgtccct tgtttggttc atggcaagag tcattattga caacaaagat 200
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 tcccaaaccg cagactacat ctttagagga agcacaactg tgcctttttc 850  
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<210> 94  
 <211> 257  
 <212> PRT  
 <213> Homo Sapien

<400> 94  
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 Arg Ile Ile Phe Leu Ile Ala Gly Ala Phe Phe Trp Leu Val Ser  
 35 40 45  
 Leu Leu Ile Ser Ser Leu Val Trp Phe Met Ala Arg Val Ile Ile  
 50 55 60  
 Asp Asn Lys Asp Gly Pro Thr Gln Lys Tyr Leu Leu Ile Phe Gly  
 65 70 75  
 Ala Phe Val Ser Val Tyr Ile Gln Glu Met Phe Arg Phe Ala Tyr  
 80 85 90  
 Tyr Lys Leu Leu Lys Lys Ala Ser Glu Gly Leu Lys Ser Ile Asn  
 95 100 105  
 Pro Gly Glu Thr Ala Pro Ser Met Arg Leu Leu Ala Tyr Val Ser  
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 Gly Leu Gly Phe Gly Ile Met Ser Gly Val Phe Ser Phe Val Asn  
 125 130 135  
 Thr Leu Ser Asp Ser Leu Gly Pro Gly Thr Val Gly Ile His Gly  
 140 145 150  
 Asp Ser Pro Gln Phe Phe Leu Tyr Ser Ala Phe Met Thr Leu Val  
 155 160 165  
 Ile Ile Leu Leu His Val Phe Trp Gly Ile Val Phe Phe Asp Gly  
 170 175 180

Cys	Glu	Lys	Lys	Lys	Trp	Gly	Ile	Leu	Leu	Ile	Val	Leu	Leu	Thr
				185					190					195
His	Leu	Leu	Val	Ser	Ala	Gln	Thr	Phe	Ile	Ser	Ser	Tyr	Tyr	Gly
				200					205					210
Ile	Asn	Leu	Ala	Ser	Ala	Phe	Ile	Ile	Leu	Val	Leu	Met	Gly	Thr
				215					220					225
Trp	Ala	Phe	Leu	Ala	Ala	Gly	Gly	Ser	Cys	Arg	Ser	Leu	Lys	Leu
				230					235					240
Cys	Leu	Leu	Cys	Gln	Asp	Lys	Asn	Phe	Leu	Leu	Tyr	Asn	Gln	Arg
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 <211> 1073  
 <212> DNA  
 <213> Homo Sapien

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 ctgctgcagg aatgacacct ggtaccaga cccaccatt gaccctggga 350  
 gggttgaatg tacaacagca actgcacca catgtgttac caatttttgt 400  
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 aaatcttcac gagcctcatc atccattcct tgttcccggg aggcatactg 500  
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 gcctcccaac tcccagtggc acagatgacg actttgcagt gaccaccct 650  
 gcaggcatcc aaaggagcac acatgccatc gaggaagcca ccacagaatac 700  
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<210> 96  
 <211> 209  
 <212> PRT  
 <213> Homo Sapien

<400> 96  
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                     20                    25                    30  
 Leu Ala Pro Asp Gln Gly Thr Leu Pro Asn Gln Gln Gln Ser Asn  
                     35                    40                    45  
 Gln Val Phe Pro Ser Leu Ser Leu Ile Pro Leu Thr Gln Met Leu  
                     50                    55                    60  
 Thr Leu Gly Pro Asp Leu His Leu Leu Asn Pro Ala Ala Gly Met  
                     65                    70                    75  
 Thr Pro Gly Thr Gln Thr His Pro Leu Thr Leu Gly Gly Leu Asn  
                     80                    85                    90  
 Val Gln Gln Gln Leu His Pro His Val Leu Pro Ile Phe Val Thr  
                     95                    100                    105  
 Gln Leu Gly Ala Gln Gly Thr Ile Leu Ser Ser Glu Glu Leu Pro  
                     110                    115                    120  
 Gln Ile Phe Thr Ser Leu Ile Ile His Ser Leu Phe Pro Gly Gly  
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 Ile Leu Pro Thr Ser Gln Ala Gly Ala Asn Pro Asp Val Gln Asp  
                     140                    145                    150  
 Gly Ser Leu Pro Ala Gly Gly Ala Gly Val Asn Pro Ala Thr Gln  
                     155                    160                    165  
 Gly Thr Pro Ala Gly Arg Leu Pro Thr Pro Ser Gly Thr Asp Asp  
                     170                    175                    180  
 Asp Phe Ala Val Thr Thr Pro Ala Gly Ile Gln Arg Ser Thr His  
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<210> 97  
 <211> 2848  
 <212> DNA  
 <213> Homo Sapien

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<210> 98  
 <211> 807  
 <212> PRT  
 <213> Homo Sapien

<400> 98  
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 35 40 45  
 Leu Pro Arg Glu Gly Ala Glu Gly Gln Ile Val Leu Ser Gly Asp  
 50 55 60  
 Ser Gly Lys Ala Thr Glu Gly Pro Phe Ala Met Asp Pro Asp Ser  
 65 70 75  
 Gly Phe Leu Leu Val Thr Arg Ala Leu Asp Arg Glu Glu Gln Ala  
 80 85 90  
 Glu Tyr Gln Leu Gln Val Thr Leu Glu Met Gln Asp Gly His Val  
 95 100 105  
 Leu Trp Gly Pro Gln Pro Val Leu Val His Val Lys Asp Glu Asn  
 110 115 120  
 Asp Gln Val Pro His Phe Ser Gln Ala Ile Tyr Arg Ala Arg Leu  
 125 130 135  
 Ser Arg Gly Thr Arg Pro Gly Ile Pro Phe Leu Phe Leu Glu Ala  
 140 145 150  
 Ser Asp Arg Asp Glu Pro Gly Thr Ala Asn Ser Asp Leu Arg Phe  
 155 160 165  
 His Ile Leu Ser Gln Ala Pro Ala Gln Pro Ser Pro Asp Met Phe  
 170 175 180  
 Gln Leu Glu Pro Arg Leu Gly Ala Leu Ala Leu Ser Pro Lys Gly  
 185 190 195  
 Ser Thr Ser Leu Asp His Ala Leu Glu Arg Thr Tyr Gln Leu Leu  
 200 205 210  
 Val Gln Val Lys Asp Met Gly Asp Gln Ala Ser Gly His Gln Ala

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Thr Ala Thr Val	Glu Val Ser Ile Ile	Glu Ser Thr Trp Val	Ser		
	230		235		240
Leu Glu Pro Ile	His Leu Ala Glu Asn	Leu Lys Val Leu Tyr	Pro		
	245		250		255
His His Met Ala	Gln Val His Trp Ser	Gly Gly Asp Val His	Tyr		
	260		265		270
His Leu Glu Ser	His Pro Pro Gly Pro	Phe Glu Val Asn Ala	Glu		
	275		280		285
Gly Asn Leu Tyr	Val Thr Arg Glu Leu	Asp Arg Glu Ala Gln	Ala		
	290		295		300
Glu Tyr Leu Leu	Gln Val Arg Ala Gln	Asn Ser His Gly Glu	Asp		
	305		310		315
Tyr Ala Ala Pro	Leu Glu Leu His Val	Leu Val Met Asp Glu	Asn		
	320		325		330
Asp Asn Val Pro	Ile Cys Pro Pro Arg	Asp Pro Thr Val Ser	Ile		
	335		340		345
Pro Glu Leu Ser	Pro Pro Gly Thr Glu	Val Thr Arg Leu Ser	Ala		
	350		355		360
Glu Asp Ala Asp	Ala Pro Gly Ser Pro	Asn Ser His Val Val	Tyr		
	365		370		375
Gln Leu Leu Ser	Pro Glu Pro Glu Asp	Gly Val Glu Gly Arg	Ala		
	380		385		390
Phe Gln Val Asp	Pro Thr Ser Gly Ser	Val Thr Leu Gly Val	Leu		
	395		400		405
Pro Leu Arg Ala	Gly Gln Asn Ile Leu	Leu Leu Val Leu Ala	Met		
	410		415		420
Asp Leu Ala Gly	Ala Glu Gly Gly Phe	Ser Ser Thr Cys Glu	Val		
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Glu Val Ala Val	Thr Asp Ile Asn Asp	His Ala Pro Glu Phe	Ile		
	440		445		450
Thr Ser Gln Ile	Gly Pro Ile Ser Leu	Pro Glu Asp Val Glu	Pro		
	455		460		465
Gly Thr Leu Val	Ala Met Leu Thr Ala	Ile Asp Ala Asp Leu	Glu		
	470		475		480
Pro Ala Phe Arg	Leu Met Asp Phe Ala	Ile Glu Arg Gly Asp	Thr		
	485		490		495
Glu Gly Thr Phe	Gly Leu Asp Trp Glu	Pro Asp Ser Gly His	Val		



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Arg	Leu	Arg	Leu	Cys	Lys	Asn	Leu	Ser	Tyr	Glu	Ala	Ala	Pro	Ser
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His	Glu	Val	Val	Val	Val	Val	Gln	Ser	Val	Ala	Lys	Leu	Val	Gly
				530					535					540
Pro	Gly	Pro	Gly	Pro	Gly	Ala	Thr	Ala	Thr	Val	Thr	Val	Leu	Val
				545					550					555
Glu	Arg	Val	Met	Pro	Pro	Pro	Lys	Leu	Asp	Gln	Glu	Ser	Tyr	Glu
				560					565					570
Ala	Ser	Val	Pro	Ile	Ser	Ala	Pro	Ala	Gly	Ser	Phe	Leu	Leu	Thr
				575					580					585
Ile	Gln	Pro	Ser	Asp	Pro	Ile	Ser	Arg	Thr	Leu	Arg	Phe	Ser	Leu
				590					595					600
Val	Asn	Asp	Ser	Glu	Gly	Trp	Leu	Cys	Ile	Glu	Lys	Phe	Ser	Gly
				605					610					615
Glu	Val	His	Thr	Ala	Gln	Ser	Leu	Gln	Gly	Ala	Gln	Pro	Gly	Asp
				620					625					630
Thr	Tyr	Thr	Val	Leu	Val	Glu	Ala	Gln	Asp	Thr	Ala	Leu	Thr	Leu
				635					640					645
Ala	Pro	Val	Pro	Ser	Gln	Tyr	Leu	Cys	Thr	Pro	Arg	Gln	Asp	His
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Gly	Leu	Ile	Val	Ser	Gly	Pro	Ser	Lys	Asp	Pro	Asp	Leu	Ala	Ser
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Gly	His	Gly	Pro	Tyr	Ser	Phe	Thr	Leu	Gly	Pro	Asn	Pro	Thr	Val
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Gln	Arg	Asp	Trp	Arg	Leu	Gln	Thr	Leu	Asn	Gly	Ser	His	Ala	Tyr
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Leu	Thr	Leu	Ala	Leu	His	Trp	Val	Glu	Pro	Arg	Glu	His	Ile	Ile
				710					715					720
Pro	Val	Val	Val	Ser	His	Asn	Ala	Gln	Met	Trp	Gln	Leu	Leu	Val
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Lys	Val	Gly	Arg	Met	Lys	Gly	Met	Pro	Thr	Lys	Leu	Ser	Ala	Val
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Gly	Ile	Leu	Val	Gly	Thr	Leu	Val	Ala	Ile	Gly	Ile	Phe	Leu	Ile
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Leu	Ile	Phe	Thr	His	Trp	Thr	Met	Ser	Arg	Lys	Lys	Asp	Pro	Asp

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 <211> 2436  
 <212> DNA  
 <213> Homo Sapien

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<210> 100  
 <211> 596  
 <212> PRT  
 <213> Homo Sapien

<400> 100

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				20					25					30
Ala	Asn	Thr	Gly	Ser	Ser	Val	Ile	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				35					40					45
Thr	Asn	Ser	Gly	Ser	Ser	Val	Thr	Ser	Ser	Gly	Val	Ser	Thr	Ala
				50					55					60
Thr	Ile	Ser	Gly	Ser	Ser	Val	Thr	Ser	Asn	Gly	Val	Ser	Ile	Val
				65					70					75
Thr	Asn	Ser	Glu	Phe	His	Thr	Thr	Ser	Ser	Gly	Ile	Ser	Thr	Ala
				80					85					90
Thr	Asn	Ser	Glu	Phe	Ser	Thr	Ala	Ser	Ser	Gly	Ile	Ser	Ile	Ala
				95					100					105
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				110					115					120
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Pro	Ser	Ser	Gly	Ala	Ser	Thr	Val
				125					130					135
Thr	Asn	Ser	Gly	Ser	Ser	Val	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				140					145					150
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Val	Ser	Ser	Arg	Ala	Ser	Thr	Ala
				155					160					165
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Leu	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				170					175					180
Thr	Asn	Ser	Asp	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				185					190					195
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				200					205					210
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Val	Ser	Ser	Arg	Ala	Ser	Thr	Ala
				215					220					225
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				230					235					240
Thr	Asn	Ser	Glu	Ser	Arg	Thr	Thr	Ser	Asn	Gly	Ala	Gly	Thr	Ala
				245					250					255
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				260					265					270
Thr	Asn	Ser	Asp	Ser	Ser	Thr	Val	Ser	Ser	Gly	Ala	Ser	Thr	Ala
				275					280					285

Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	
				290					295					300	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	
				305					310					315	
Thr	Asn	Ser	Asp	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Gly	Thr	Ala	
				320					325					330	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Val	Ser	Ser	Gly	Ile	Ser	Thr	Val	
				335					340					345	
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Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Asn	Thr	Ala	
				365					370					375	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Val	Ser	Ser	Gly	Ala	Ser	Thr	Ala	
				380					385					390	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Val	Ser	Thr	Ala	
				395					400					405	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	
				410					415					420	
Thr	Asn	Ser	Asp	Ser	Ser	Thr	Thr	Ser	Ser	Glu	Ala	Ser	Thr	Ala	
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Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Asn	Thr	Ala	
				455					460					465	
Thr	Asn	Ser	Gly	Ser	Ser	Val	Thr	Ser	Ala	Gly	Ser	Gly	Thr	Ala	
				470					475					480	
Ala	Leu	Thr	Gly	Met	His	Thr	Thr	Ser	His	Ser	Ala	Ser	Thr	Ala	
				485					490					495	
Val	Ser	Glu	Ala	Lys	Pro	Gly	Gly	Ser	Leu	Val	Pro	Trp	Glu	Ile	
				500					505					510	
Phe	Leu	Ile	Thr	Leu	Val	Ser	Val	Val	Ala	Ala	Val	Gly	Leu	Phe	
				515					520					525	
Ala	Gly	Leu	Phe	Phe	Cys	Val	Arg	Asn	Ser	Leu	Ser	Leu	Arg	Asn	
				530					535					540	
Thr	Phe	Asn	Thr	Ala	Val	Tyr	His	Pro	His	Gly	Leu	Asn	His	Gly	
				545					550					555	
Leu	Gly	Pro	Gly	Pro	Gly	Gly	Asn	His	Gly	Ala	Pro	His	Arg	Pro	
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Ala Met Glu Met Ser Gly Arg Asn Ser Gly Pro  
590 595

<210> 101  
<211> 1728  
<212> DNA  
<213> Homo Sapien

<400> 101  
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tcgcgcggcg tgccctgctt gtcacagggt ggaggctgga actatcaggc 150  
tgaaaaacag agtgggtact ctcttctggg aagctggcaa caaatggatg 200  
atgtgatata tgcattccag ggaagggaa attgtggtgc ttctgaaccc 250  
atggtcaatt aacgaggcag tttctagcta ctgcacgtac ttcataaagc 300  
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atactgactc tgttttgggg aagctttttt ggaagcattt tcatgctgag 400  
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accatgtttg gtgtaaaagt gattataact ggggatgcat ttgttcctgg 550  
agaaagaagt gtcattatca tgaaccatcg gacaagaatg gactggatgt 600  
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tgccctcaaag cgagtctcaa aggtgttcct ggatttggtt gggccatgca 700  
ggctgctgcc tatatcttca ttcataggaa atggaaggat gacaagagcc 750  
atttcgaaga catgattgat tacttttgtg atattcacga accacttcaa 800  
ctcctcatat tcccagaagg gactgatctc acagaaaaca gcaagtctcg 850  
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cattcctcaa tcagagaagc acctcctcca aggagacttt ccagggaaa 1050  
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gaggaccttc aactctggtg ccacaaacgg tgggaagaga aagaagagag 1150

gctgcgttcc ttctatcaag gggagaagaa tttttatttt accggacaga 1200  
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<210> 102  
<211> 414  
<212> PRT  
<213> Homo Sapien

<400> 102  
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Gln Asp Ser Lys Ser Phe Gly Ile Met Val Ser Trp Lys Gly Ile  
35 40 45  
Tyr Phe Ile Leu Thr Leu Phe Trp Gly Ser Phe Phe Gly Ser Ile  
50 55 60  
Phe Met Leu Ser Pro Phe Leu Pro Leu Met Phe Val Asn Pro Ser  
65 70 75  
Trp Tyr Arg Trp Ile Asn Asn Arg Leu Val Ala Thr Trp Leu Thr  
80 85 90  
Leu Pro Val Ala Leu Leu Glu Thr Met Phe Gly Val Lys Val Ile  
95 100 105  
Ile Thr Gly Asp Ala Phe Val Pro Gly Glu Arg Ser Val Ile Ile  
110 115 120  
Met Asn His Arg Thr Arg Met Asp Trp Met Phe Leu Trp Asn Cys  
125 130 135

Leu Met Arg Tyr Ser Tyr Leu Arg Leu Glu Lys Ile Cys Leu Lys	140	145	150
Ala Ser Leu Lys Gly Val Pro Gly Phe Gly Trp Ala Met Gln Ala	155	160	165
Ala Ala Tyr Ile Phe Ile His Arg Lys Trp Lys Asp Asp Lys Ser	170	175	180
His Phe Glu Asp Met Ile Asp Tyr Phe Cys Asp Ile His Glu Pro	185	190	195
Leu Gln Leu Leu Ile Phe Pro Glu Gly Thr Asp Leu Thr Glu Asn	200	205	210
Ser Lys Ser Arg Ser Asn Ala Phe Ala Glu Lys Asn Gly Leu Gln	215	220	225
Lys Tyr Glu Tyr Val Leu His Pro Arg Thr Thr Gly Phe Thr Phe	230	235	240
Val Val Asp Arg Leu Arg Glu Gly Lys Asn Leu Asp Ala Val His	245	250	255
Asp Ile Thr Val Ala Tyr Pro His Asn Ile Pro Gln Ser Glu Lys	260	265	270
His Leu Leu Gln Gly Asp Phe Pro Arg Glu Ile His Phe His Val	275	280	285
His Arg Tyr Pro Ile Asp Thr Leu Pro Thr Ser Lys Glu Asp Leu	290	295	300
Gln Leu Trp Cys His Lys Arg Trp Glu Glu Lys Glu Glu Arg Leu	305	310	315
Arg Ser Phe Tyr Gln Gly Glu Lys Asn Phe Tyr Phe Thr Gly Gln	320	325	330
Ser Val Ile Pro Pro Cys Lys Ser Glu Leu Arg Val Leu Val Val	335	340	345
Lys Leu Leu Ser Ile Leu Tyr Trp Thr Leu Phe Ser Pro Ala Met	350	355	360
Cys Leu Leu Ile Tyr Leu Tyr Ser Leu Val Lys Trp Tyr Phe Ile	365	370	375
Ile Thr Ile Val Ile Phe Val Leu Gln Glu Arg Ile Phe Gly Gly	380	385	390
Leu Glu Ile Ile Glu Leu Ala Cys Tyr Arg Leu Leu His Lys Gln	395	400	405
Pro His Leu Asn Ser Lys Lys Asn Glu	410		



<210> 103  
<211> 2403  
<212> DNA  
<213> Homo Sapien

<400> 103  
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ttcatagtgt gagatcaacc cacaggaata tccatggctt ttgtgctcat 150  
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 tgagggcaca gtgtttgcta atgatgtgtt tttatattat acattttccc 2000  
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<210> 104

<211> 466

<212> PRT

<213> Homo Sapien

<400> 104

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	20	25	30
Leu Val Gly Glu Asp Ala Val Phe Ser Cys Ser Leu Phe Pro Glu	35	40	45
Thr Ser Ala Glu Ala Met Glu Val Arg Phe Phe Arg Asn Gln Phe	50	55	60
His Ala Val Val His Leu Tyr Arg Asp Gly Glu Asp Trp Glu Ser	65	70	75
Lys Gln Met Pro Gln Tyr Arg Gly Arg Thr Glu Phe Val Lys Asp	80	85	90
Ser Ile Ala Gly Gly Arg Val Ser Leu Arg Leu Lys Asn Ile Thr	95	100	105
Pro Ser Asp Ile Gly Leu Tyr Gly Cys Trp Phe Ser Ser Gln Ile	110	115	120
Tyr Asp Glu Glu Ala Thr Trp Glu Leu Arg Val Ala Ala Leu Gly	125	130	135
Ser Leu Pro Leu Ile Ser Ile Val Gly Tyr Val Asp Gly Gly Ile	140	145	150
Gln Leu Leu Cys Leu Ser Ser Gly Trp Phe Pro Gln Pro Thr Ala	155	160	165
Lys Trp Lys Gly Pro Gln Gly Gln Asp Leu Ser Ser Asp Ser Arg	170	175	180
Ala Asn Ala Asp Gly Tyr Ser Leu Tyr Asp Val Glu Ile Ser Ile	185	190	195
Ile Val Gln Glu Asn Ala Gly Ser Ile Leu Cys Ser Ile His Leu	200	205	210
Ala Glu Gln Ser His Glu Val Glu Ser Lys Val Leu Ile Gly Glu	215	220	225
Thr Phe Phe Gln Pro Ser Pro Trp Arg Leu Ala Ser Ile Leu Leu	230	235	240
Gly Leu Leu Cys Gly Ala Leu Cys Gly Val Val Met Gly Met Ile	245	250	255
Ile Val Phe Phe Lys Ser Lys Gly Lys Ile Gln Ala Glu Leu Asp	260	265	270
Trp Arg Arg Lys His Gly Gln Ala Glu Leu Arg Asp Ala Arg Lys	275	280	285
His Ala Val Glu Val Thr Leu Asp Pro Glu Thr Ala His Pro Lys	290	295	300
Leu Cys Val Ser Asp Leu Lys Thr Val Thr His Arg Lys Ala Pro			

	305		310		315
Gln Glu Val Pro His Ser Glu Lys Arg Phe Thr Arg Lys Ser Val					
	320		325		330
Val Ala Ser Gln Gly Phe Gln Ala Gly Arg His Tyr Trp Glu Val					
	335		340		345
Asp Val Gly Gln Asn Val Gly Trp Tyr Val Gly Val Cys Arg Asp					
	350		355		360
Asp Val Asp Arg Gly Lys Asn Asn Val Thr Leu Ser Pro Asn Asn					
	365		370		375
Gly Tyr Trp Val Leu Arg Leu Thr Thr Glu His Leu Tyr Phe Thr					
	380		385		390
Phe Asn Pro His Phe Ile Ser Leu Pro Pro Ser Thr Pro Pro Thr					
	395		400		405
Arg Val Gly Val Phe Leu Asp Tyr Glu Gly Gly Thr Ile Ser Phe					
	410		415		420
Phe Asn Thr Asn Asp Gln Ser Leu Ile Tyr Thr Leu Leu Thr Cys					
	425		430		435
Gln Phe Glu Gly Leu Leu Arg Pro Tyr Ile Gln His Ala Met Tyr					
	440		445		450
Asp Glu Glu Lys Gly Thr Pro Ile Phe Ile Cys Pro Val Ser Trp					
	455		460		465

Gly

<210> 105

<211> 2103

<212> DNA

<213> Homo Sapien

<400> 105

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gtcatcttca tatccctgat tgtcctggca gtgtgcattg gactcactgt 150

tcattatgtg agatataatc aaaagaagac ctacaattac tatagcacat 200

tgtcatttac aactgacaaa ctatatgctg agtttggcag agaggcttct 250

aacaatttta cagaaatgag ccagagactt gaatcaatgg tgaaaaatgc 300

atattataaa tctccattaa gggaagaatt tgtcaagtct caggttatca 350

agttcagtca acagaagcat ggagtgttgg ctcatatgct gttgatttgt 400

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 aataccaatc acttcatcat ttaggaagta tgggaactaa gttaaggaag 1900

tccagaaaga agccaagata tatccttatt ttcatttcca aacaactact 1950  
atgataaatg tgaagaagat tctgtttttt tgtgacctat aataattata 2000  
caaaacttcat gcaatgtact tggttctaagc aaattaaagc aaatatttat 2050  
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cca 2103

<210> 106  
<211> 423  
<212> PRT  
<213> Homo Sapien

<400> 106  
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Val Leu Ala Val Cys Ile Gly Leu Thr Val His Tyr Val Arg Tyr  
35 40 45  
Asn Gln Lys Lys Thr Tyr Asn Tyr Tyr Ser Thr Leu Ser Phe Thr  
50 55 60  
Thr Asp Lys Leu Tyr Ala Glu Phe Gly Arg Glu Ala Ser Asn Asn  
65 70 75  
Phe Thr Glu Met Ser Gln Arg Leu Glu Ser Met Val Lys Asn Ala  
80 85 90  
Phe Tyr Lys Ser Pro Leu Arg Glu Glu Phe Val Lys Ser Gln Val  
95 100 105  
Ile Lys Phe Ser Gln Gln Lys His Gly Val Leu Ala His Met Leu  
110 115 120  
Leu Ile Cys Arg Phe His Ser Thr Glu Asp Pro Glu Thr Val Asp  
125 130 135  
Lys Ile Val Gln Leu Val Leu His Glu Lys Leu Gln Asp Ala Val  
140 145 150  
Gly Pro Pro Lys Val Asp Pro His Ser Val Lys Ile Lys Lys Ile  
155 160 165  
Asn Lys Thr Glu Thr Asp Ser Tyr Leu Asn His Cys Cys Gly Thr  
170 175 180  
Arg Arg Ser Lys Thr Leu Gly Gln Ser Leu Arg Ile Val Gly Gly  
185 190 195  
Thr Glu Val Glu Glu Gly Glu Trp Pro Trp Gln Ala Ser Leu Gln

	200		205		210
Trp Asp Gly Ser	His Arg Cys Gly Ala	Thr Leu Ile Asn Ala	Thr		
	215		220		225
Trp Leu Val Ser	Ala Ala His Cys Phe	Thr Thr Tyr Lys Asn	Pro		
	230		235		240
Ala Arg Trp Thr	Ala Ser Phe Gly Val	Thr Ile Lys Pro Ser	Lys		
	245		250		255
Met Lys Arg Gly	Leu Arg Arg Ile Ile	Val His Glu Lys Tyr	Lys		
	260		265		270
His Pro Ser His	Asp Tyr Asp Ile Ser	Leu Ala Glu Leu Ser	Ser		
	275		280		285
Pro Val Pro Tyr	Thr Asn Ala Val His	Arg Val Cys Leu Pro	Asp		
	290		295		300
Ala Ser Tyr Glu	Phe Gln Pro Gly Asp	Val Met Phe Val Thr	Gly		
	305		310		315
Phe Gly Ala Leu	Lys Asn Asp Gly Tyr	Ser Gln Asn His Leu	Arg		
	320		325		330
Gln Ala Gln Val	Thr Leu Ile Asp Ala	Thr Thr Cys Asn Glu	Pro		
	335		340		345
Gln Ala Tyr Asn	Asp Ala Ile Thr Pro	Arg Met Leu Cys Ala	Gly		
	350		355		360
Ser Leu Glu Gly	Lys Thr Asp Ala Cys	Gln Gly Asp Ser Gly	Gly		
	365		370		375
Pro Leu Val Ser	Ser Asp Ala Arg Asp	Ile Trp Tyr Leu Ala	Gly		
	380		385		390
Ile Val Ser Trp	Gly Asp Glu Cys Ala	Lys Pro Asn Lys Pro	Gly		
	395		400		405
Val Tyr Thr Arg	Val Thr Ala Leu Arg	Asp Trp Ile Thr Ser	Lys		
	410		415		420

Thr Gly Ile

<210> 107

<211> 2397

<212> DNA

<213> Homo Sapien

<400> 107

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 gctcacaatg gccagagaag attccgtgaa gtgtctgcgc tgctgtctct 250  
 acgccctcaa tctgtctctt tggttaatgt ccatcagtgt gttggcagtt 300  
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 caaacttggt ttattggact tgtgaatttt tgagtacata ctatgtgttt 1200  
 cagaaatatg tagaaataaa aatggttgcca taaaataaca cctaagcata 1250  
 tactattcta tgctttaaaa tgaggatgga aaagtttcat gtcataagtc 1300  
 accacctgga caataattga tgcccttaaa atgctgaaga cagatgtcat 1350  
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 aggcagcatg gtttgattag catttccgca tccatgcaaa cgagtcacat 1450  
 atggtgggac tggagccata gtaaagggtg atttacttct accaactagt 1500  
 atataaagta ctaattaaat gctaacatag gaagttagaa aatactaata 1550



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<210> 108  
<211> 305  
<212> PRT  
<213> Homo Sapien

<400> 108  
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20 25 30  
Val Ser Ala Trp Met Arg Asp Tyr Leu Asn Asn Val Leu Thr Leu  
35 40 45  
Thr Ala Glu Thr Arg Val Glu Glu Ala Val Ile Leu Thr Tyr Phe  
50 55 60  
Pro Val Val His Pro Val Met Ile Ala Val Cys Cys Phe Leu Ile  
65 70 75  
Ile Val Gly Met Leu Gly Tyr Cys Gly Thr Val Lys Arg Asn Leu  
80 85 90

Leu	Leu	Leu	Ala	Trp	Tyr	Phe	Gly	Ser	Leu	Leu	Val	Ile	Phe	Cys	
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Val	Glu	Leu	Ala	Cys	Gly	Val	Trp	Thr	Tyr	Glu	Gln	Glu	Leu	Met	
				110					115					120	
Val	Pro	Val	Gln	Trp	Ser	Asp	Met	Val	Thr	Leu	Lys	Ala	Arg	Met	
				125					130					135	
Thr	Asn	Tyr	Gly	Leu	Pro	Arg	Tyr	Arg	Trp	Leu	Thr	His	Ala	Trp	
				140					145					150	
Asn	Phe	Phe	Gln	Arg	Glu	Phe	Lys	Cys	Cys	Gly	Val	Val	Tyr	Phe	
				155					160					165	
Thr	Asp	Trp	Leu	Glu	Met	Thr	Glu	Met	Asp	Trp	Pro	Pro	Asp	Ser	
				170					175					180	
Cys	Cys	Val	Arg	Glu	Phe	Pro	Gly	Cys	Ser	Lys	Gln	Ala	His	Gln	
				185					190					195	
Glu	Asp	Leu	Ser	Asp	Leu	Tyr	Gln	Glu	Gly	Cys	Gly	Lys	Lys	Met	
				200					205					210	
Tyr	Ser	Phe	Leu	Arg	Gly	Thr	Lys	Gln	Leu	Gln	Val	Leu	Arg	Phe	
				215					220					225	
Leu	Gly	Ile	Ser	Ile	Gly	Val	Thr	Gln	Ile	Leu	Ala	Met	Ile	Leu	
				230					235					240	
Thr	Ile	Thr	Leu	Leu	Trp	Ala	Leu	Tyr	Tyr	Asp	Arg	Arg	Glu	Pro	
				245					250					255	
Gly	Thr	Asp	Gln	Met	Met	Ser	Leu	Lys	Asn	Asp	Asn	Ser	Gln	His	
				260					265					270	
Leu	Ser	Cys	Pro	Ser	Val	Glu	Leu	Leu	Lys	Pro	Ser	Leu	Ser	Arg	
				275					280					285	
Ile	Phe	Glu	His	Thr	Ser	Met	Ala	Asn	Ser	Phe	Asn	Thr	His	Phe	
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Glu	Met	Glu	Glu	Leu											
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<210> 109

<211> 2339

<212> DNA

<213> Homo Sapien

<400> 109

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 ggaatttgga agtgtatcaa taaaacagta tataatttt 2339

<210> 110

<211> 545

<212> PRT

<213> Homo Sapien

<400> 110

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				20					25					30

Leu	Asn	Glu	Pro	Trp	Arg	Asn	Thr	Asp	His	Gln	Leu	Asp	Glu	Ser
				35					40					45

Gln	Gly	Pro	Pro	Leu	Cys	Asp	Asn	His	Val	Asn	Gly	Glu	Trp	Tyr
				50					55					60

His	Phe	Thr	Gly	Met	Ala	Gly	Asp	Ala	Met	Pro	Thr	Phe	Cys	Ile
				65					70					75

Pro	Glu	Asn	His	Cys	Gly	Thr	His	Ala	Pro	Val	Trp	Leu	Asn	Gly
				80					85					90

Ser	His	Pro	Leu	Glu	Gly	Asp	Gly	Ile	Val	Gln	Arg	Gln	Ala	Cys
				95					100					105

Ala Ser Phe Asn Gly	Asn Cys Cys Leu Trp	Asn Thr Thr Val Glu
110	115	120
Val Lys Ala Cys Pro Gly Gly Tyr Tyr	Val Tyr Arg Leu Thr Lys	
125	130	135
Pro Ser Val Cys Phe His Val Tyr Cys	Gly His Phe Tyr Asp Ile	
140	145	150
Cys Asp Glu Asp Cys His Gly Ser Cys	Ser Asp Thr Ser Glu Cys	
155	160	165
Thr Cys Ala Pro Gly Thr Val Leu Gly	Pro Asp Arg Gln Thr Cys	
170	175	180
Phe Asp Glu Asn Glu Cys Glu Gln Asn	Asn Gly Gly Cys Ser Glu	
185	190	195
Ile Cys Val Asn Leu Lys Asn Ser Tyr	Arg Cys Glu Cys Gly Val	
200	205	210
Gly Arg Val Leu Arg Ser Asp Gly Lys	Thr Cys Glu Asp Val Glu	
215	220	225
Gly Cys His Asn Asn Asn Gly Gly Cys	Ser His Ser Cys Leu Gly	
230	235	240
Ser Glu Lys Gly Tyr Gln Cys Glu Cys	Pro Arg Gly Leu Val Leu	
245	250	255
Ser Glu Asp Asn His Thr Cys Gln Val	Pro Val Leu Cys Lys Ser	
260	265	270
Asn Ala Ile Glu Val Asn Ile Pro Arg	Glu Leu Val Gly Gly Leu	
275	280	285
Glu Leu Phe Leu Thr Asn Thr Ser Cys	Arg Gly Val Ser Asn Gly	
290	295	300
Thr His Val Asn Ile Leu Phe Ser Leu	Lys Thr Cys Gly Thr Val	
305	310	315
Val Asp Val Val Asn Asp Lys Ile Val	Ala Ser Asn Leu Val Thr	
320	325	330
Gly Leu Pro Lys Gln Thr Pro Gly Ser	Ser Gly Asp Phe Ile Ile	
335	340	345
Arg Thr Ser Lys Leu Leu Ile Pro Val	Thr Cys Glu Phe Pro Arg	
350	355	360
Leu Tyr Thr Ile Ser Glu Gly Tyr Val	Pro Asn Leu Arg Asn Ser	
365	370	375
Pro Leu Glu Ile Met Ser Arg Asn His	Gly Ile Phe Pro Phe Thr	
380	385	390

Leu	Glu	Ile	Phe	Lys	Asp	Asn	Glu	Phe	Glu	Glu	Pro	Tyr	Arg	Glu	
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Ala	Leu	Pro	Thr	Leu	Lys	Leu	Arg	Asp	Ser	Leu	Tyr	Phe	Gly	Ile	
				410					415					420	
Glu	Pro	Val	Val	His	Val	Ser	Gly	Leu	Glu	Ser	Leu	Val	Glu	Ser	
				425					430					435	
Cys	Phe	Ala	Thr	Pro	Thr	Ser	Lys	Ile	Asp	Glu	Val	Leu	Lys	Tyr	
				440					445					450	
Tyr	Leu	Ile	Arg	Asp	Gly	Cys	Val	Ser	Asp	Asp	Ser	Val	Lys	Gln	
				455					460					465	
Tyr	Thr	Ser	Arg	Asp	His	Leu	Ala	Lys	His	Phe	Gln	Val	Pro	Val	
				470					475					480	
Phe	Lys	Phe	Val	Gly	Lys	Asp	His	Lys	Glu	Val	Phe	Leu	His	Cys	
				485					490					495	
Arg	Val	Leu	Val	Cys	Gly	Val	Leu	Asp	Glu	Arg	Ser	Arg	Cys	Ala	
				500					505					510	
Gln	Gly	Cys	His	Arg	Arg	Met	Arg	Arg	Gly	Ala	Gly	Gly	Glu	Asp	
				515					520					525	
Ser	Ala	Gly	Leu	Gln	Gly	Gln	Thr	Leu	Thr	Gly	Gly	Pro	Ile	Arg	
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Ile	Asp	Trp	Glu	Asp											
				545											

<210> 111  
 <211> 2063  
 <212> DNA  
 <213> Homo Sapien

<400> 111  
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 cttggggtga caatctcagc tccaggctac agggagaccg ggaggatcac 200  
 agagccagca tgttacagga tcctgacagt gatcaacctc tgaacagcct 250  
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 aggtggggat ccccatcatc atagcactac tgagcctggc gagtatcatc 350  
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 gatgatgtgt gcaggcatcc cggaaggggg tgtggacacc tgccagggtg 1350  
 acagtgggtg gccctgatg taccaatctg accagtggca tgtggtgggc 1400  
 atcgttagct ggggctatgg ctgcgggggc ccgagcacc caggagtata 1450  
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 agctgtaatg ctgctgcccc tttgcagtgc tgggagccgc ttccttctg 1550  
 ccctgcccac ctggggatcc cccaaagtca gacacagagc aagagtcccc 1600  
 ttgggtacac ccctctgccc acagcctcag cttttcttgg agcagcaaag 1650  
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 agacacagcc cactgaacaa ggtctcagg gtattgctaa gccagaagg 1800  
 aactttccca cactactgaa tggaagcagg ctgtcttgta aaagcccaga 1850  
 tcactgtggg ctggagagga gaaggaaagg gtctgcgcca gccctgtccg 1900

tcttcaccca tccccaagcc tactagagca agaaaccagt tgtaataataa 1950  
aatgcactgc cctactgttg gtatgactac cgttacctac tgttgtcatt 2000  
gttattacag ctatggccac tattattaaa gagctgtgta acatctctgg 2050  
caaaaaaaaaaaa aaa 2063

<210> 112  
<211> 432  
<212> PRT  
<213> Homo Sapien

<400> 112  
Met Leu Gln Asp Pro Asp Ser Asp Gln Pro Leu Asn Ser Leu Asp  
1 5 10 15  
Val Lys Pro Leu Arg Lys Pro Arg Ile Pro Met Glu Thr Phe Arg  
20 25 30  
Lys Val Gly Ile Pro Ile Ile Ile Ala Leu Leu Ser Leu Ala Ser  
35 40 45  
Ile Ile Ile Val Val Val Leu Ile Lys Val Ile Leu Asp Lys Tyr  
50 55 60  
Tyr Phe Leu Cys Gly Gln Pro Leu His Phe Ile Pro Arg Lys Gln  
65 70 75  
Leu Cys Asp Gly Glu Leu Asp Cys Pro Leu Gly Glu Asp Glu Glu  
80 85 90  
His Cys Val Lys Ser Phe Pro Glu Gly Pro Ala Val Ala Val Arg  
95 100 105  
Leu Ser Lys Asp Arg Ser Thr Leu Gln Val Leu Asp Ser Ala Thr  
110 115 120  
Gly Asn Trp Phe Ser Ala Cys Phe Asp Asn Phe Thr Glu Ala Leu  
125 130 135  
Ala Glu Thr Ala Cys Arg Gln Met Gly Tyr Ser Arg Ala Val Glu  
140 145 150  
Ile Gly Pro Asp Gln Asp Leu Asp Val Val Glu Ile Thr Glu Asn  
155 160 165  
Ser Gln Glu Leu Arg Met Arg Asn Ser Ser Gly Pro Cys Leu Ser  
170 175 180  
Gly Ser Leu Val Ser Leu His Cys Leu Ala Cys Gly Lys Ser Leu  
185 190 195  
Lys Thr Pro Arg Val Val Gly Gly Glu Glu Ala Ser Val Asp Ser  
200 205 210



Trp	Pro	Trp	Gln	Val	Ser	Ile	Gln	Tyr	Asp	Lys	Gln	His	Val	Cys	
				215					220					225	
Gly	Gly	Ser	Ile	Leu	Asp	Pro	His	Trp	Val	Leu	Thr	Ala	Ala	His	
				230					235					240	
Cys	Phe	Arg	Lys	His	Thr	Asp	Val	Phe	Asn	Trp	Lys	Val	Arg	Ala	
				245					250					255	
Gly	Ser	Asp	Lys	Leu	Gly	Ser	Phe	Pro	Ser	Leu	Ala	Val	Ala	Lys	
				260					265					270	
Ile	Ile	Ile	Ile	Glu	Phe	Asn	Pro	Met	Tyr	Pro	Lys	Asp	Asn	Asp	
				275					280					285	
Ile	Ala	Leu	Met	Lys	Leu	Gln	Phe	Pro	Leu	Thr	Phe	Ser	Gly	Thr	
				290					295					300	
Val	Arg	Pro	Ile	Cys	Leu	Pro	Phe	Phe	Asp	Glu	Glu	Leu	Thr	Pro	
				305					310					315	
Ala	Thr	Pro	Leu	Trp	Ile	Ile	Gly	Trp	Gly	Phe	Thr	Lys	Gln	Asn	
				320					325					330	
Gly	Gly	Lys	Met	Ser	Asp	Ile	Leu	Leu	Gln	Ala	Ser	Val	Gln	Val	
				335					340					345	
Ile	Asp	Ser	Thr	Arg	Cys	Asn	Ala	Asp	Asp	Ala	Tyr	Gln	Gly	Glu	
				350					355					360	
Val	Thr	Glu	Lys	Met	Met	Cys	Ala	Gly	Ile	Pro	Glu	Gly	Gly	Val	
				365					370					375	
Asp	Thr	Cys	Gln	Gly	Asp	Ser	Gly	Gly	Pro	Leu	Met	Tyr	Gln	Ser	
				380					385					390	
Asp	Gln	Trp	His	Val	Val	Gly	Ile	Val	Ser	Trp	Gly	Tyr	Gly	Cys	
				395					400					405	
Gly	Gly	Pro	Ser	Thr	Pro	Gly	Val	Tyr	Thr	Lys	Val	Ser	Ala	Tyr	
				410					415					420	
Leu	Asn	Trp	Ile	Tyr	Asn	Val	Trp	Lys	Ala	Glu	Leu				
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<210> 113

<211> 1768

<212> DNA

<213> Homo Sapien

<400> 113

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tatgctgtgg tggctagtgc tcctactcct acctacatta aaatctgttt 200  
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 ctgtggctct ggcccaaacc tgaccttcac tctggaacga gaacagaggt 300  
 ttctaccac accgtccct cgaagccggg gacagcctca ccttgctggc 350  
 ctctcgctgg agcagtgcc tcaccaactg tctcacgtct ggaggcactg 400  
 actcgggcag tgcaggtagc tgagcctctt ggtagctgcg gctttcaagg 450  
 tgggccttgc cctggccgta gaagggttg acaagccga agatttcata 500  
 ggcgatggct ccactgcc aggcatacagc cttgctgtag tcaatcactg 550  
 ccctggggcc aggacgggcc gtggacacct gctcagaagc agtgggtgag 600  
 acatcacgtc gccgcgccat ctaacctttt catgtcctgc acatcacctg 650  
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 gctgtggctc agaccagaa ggggtctgct tagaccact ggtttatgtg 750  
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 ctgcaggccg atgtctcat cagccaggca gcagccaaaa tctgcgatca 1050  
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 ctccctcct tccctctgag aggcctcct atgtccctac taaagccacc 1150  
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 cagcaaggcc tgagagctga tcagaagggc ctgctgtgcg aacacggaaa 1250  
 tgctccagt aagcacaggc tgcaaatcc ccaggcaaag gactgtgtgg 1300  
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 taagaatcag ttattgccg gtgtgggtggc ctgtaatgcc aacatttttg 1500  
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 gagaattact tgaacctggg aggtgaagga ggctgagaca ggagaatcac 1700  
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 aattatggtt atttgtaa 1768

<210> 114  
 <211> 109  
 <212> PRT  
 <213> Homo Sapien

<400> 114  
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 Val Phe Cys Ser Leu Val Thr Ser Leu Tyr Leu Pro Asn Thr Glu  
                     20                    25                    30  
 Asp Leu Ser Leu Trp Leu Trp Pro Lys Pro Asp Leu His Ser Gly  
                     35                    40                    45  
 Thr Arg Thr Glu Val Ser Thr His Thr Val Pro Ser Lys Pro Gly  
                     50                    55                    60  
 Thr Ala Ser Pro Cys Trp Pro Leu Ala Gly Ala Val Pro Ser Pro  
                     65                    70                    75  
 Thr Val Ser Arg Leu Glu Ala Leu Thr Arg Ala Val Gln Val Ala  
                     80                    85                    90  
 Glu Pro Leu Gly Ser Cys Gly Phe Gln Gly Gly Pro Cys Pro Gly  
                     95                    100                    105  
 Arg Arg Arg Asp

<210> 115  
 <211> 1197  
 <212> DNA  
 <213> Homo Sapien

<400> 115  
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 gagagaccat ggcaaagaat cctccagaga attgtgaaga ctgtcacatt 100  
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 ttgtggactg gtgttttgta tcttggccct aactctaatt gtctgtttt 200  
 gggggagcaa gcacttctgg ccggaggtac ccaaaaaagc ctatgacatg 250  
 gagcacactt tctacagcaa tggagagaag aagaagattt acatggaaat 300  
 tgatcctgtg accagaactg aaatattcag aagcggaaat ggcactgatg 350

aaacattgga agtgcacgac tttaaaaacg gatacactgg catctacttc 400  
 gtgggtcttc aaaaatgttt tatcaaaact cagattaaag tgattcctga 450  
 attttctgaa ccagaagagg aaatagatga gaatgaagaa attaccacaa 500  
 ctttctttga acagtcagtg atttgggtcc cagcagaaaa gcctattgaa 550  
 aaccgagatt ttcttaaaaa ttccaaaatt ctggagattt gtgataacgt 600  
 gaccatgtat tggatcaatc ccactcta atcagtttct gagttacaag 650  
 actttgagga ggagggagaa gatcttcact ttcttgccaa cgaaaaaaaa 700  
 gggattgaac aaaatgaaca gtgggtgggc cctcaagtga aagtagagaa 750  
 gacccgtcac gccagacaag caagtgagga agaacttcca ataaatgact 800  
 atactgaaaa tggaatagaa tttgatccca tgctggatga gagagggttat 850  
 tgttgtatatt actgccgtcg aggcaaccgc tattgccgcc gcgtctgtga 900  
 acctttacta ggctactacc catatccata ctgctaccaa ggaggacgag 950  
 tcatctgtcg tgtcatcatg ccttgtaact ggtgggtggc ccgcatgctg 1000  
 gggaggggtct aataggaggt ttgagctcaa atgcttaa ac tgctggcaac 1050  
 atataataaa tgcattgctat tcaatgaatt tctgcctatg aggcattctgg 1100  
 cccctggtag ccagctctcc agaattactt gtaggtaatt cctctcttca 1150  
 tgttctaata aacttctaca ttatcaccaa aaaaaaaaaa aaaaaaa 1197

<210> 116

<211> 317

<212> PRT

<213> Homo Sapien

<400> 116

Met	Ala	Lys	Asn	Pro	Pro	Glu	Asn	Cys	Glu	Asp	Cys	His	Ile	Leu
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Asn	Ala	Glu	Ala	Phe	Lys	Ser	Lys	Lys	Ile	Cys	Lys	Ser	Leu	Lys
				20					25					30

Ile	Cys	Gly	Leu	Val	Phe	Gly	Ile	Leu	Ala	Leu	Thr	Leu	Ile	Val
				35					40					45

Leu	Phe	Trp	Gly	Ser	Lys	His	Phe	Trp	Pro	Glu	Val	Pro	Lys	Lys
				50					55					60

Ala	Tyr	Asp	Met	Glu	His	Thr	Phe	Tyr	Ser	Asn	Gly	Glu	Lys	Lys
				65					70					75

Lys	Ile	Tyr	Met	Glu	Ile	Asp	Pro	Val	Thr	Arg	Thr	Glu	Ile	Phe
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

80					85					90				
Arg	Ser	Gly	Asn	Gly	Thr	Asp	Glu	Thr	Leu	Glu	Val	His	Asp	Phe
				95					100					105
Lys	Asn	Gly	Tyr	Thr	Gly	Ile	Tyr	Phe	Val	Gly	Leu	Gln	Lys	Cys
				110					115					120
Phe	Ile	Lys	Thr	Gln	Ile	Lys	Val	Ile	Pro	Glu	Phe	Ser	Glu	Pro
				125					130					135
Glu	Glu	Glu	Ile	Asp	Glu	Asn	Glu	Glu	Ile	Thr	Thr	Thr	Phe	Phe
				140					145					150
Glu	Gln	Ser	Val	Ile	Trp	Val	Pro	Ala	Glu	Lys	Pro	Ile	Glu	Asn
				155					160					165
Arg	Asp	Phe	Leu	Lys	Asn	Ser	Lys	Ile	Leu	Glu	Ile	Cys	Asp	Asn
				170					175					180
Val	Thr	Met	Tyr	Trp	Ile	Asn	Pro	Thr	Leu	Ile	Ser	Val	Ser	Glu
				185					190					195
Leu	Gln	Asp	Phe	Glu	Glu	Glu	Gly	Glu	Asp	Leu	His	Phe	Pro	Ala
				200					205					210
Asn	Glu	Lys	Lys	Gly	Ile	Glu	Gln	Asn	Glu	Gln	Trp	Val	Val	Pro
				215					220					225
Gln	Val	Lys	Val	Glu	Lys	Thr	Arg	His	Ala	Arg	Gln	Ala	Ser	Glu
				230					235					240
Glu	Glu	Leu	Pro	Ile	Asn	Asp	Tyr	Thr	Glu	Asn	Gly	Ile	Glu	Phe
				245					250					255
Asp	Pro	Met	Leu	Asp	Glu	Arg	Gly	Tyr	Cys	Cys	Ile	Tyr	Cys	Arg
				260					265					270
Arg	Gly	Asn	Arg	Tyr	Cys	Arg	Arg	Val	Cys	Glu	Pro	Leu	Leu	Gly
				275					280					285
Tyr	Tyr	Pro	Tyr	Pro	Tyr	Cys	Tyr	Gln	Gly	Gly	Arg	Val	Ile	Cys
				290					295					300
Arg	Val	Ile	Met	Pro	Cys	Asn	Trp	Trp	Val	Ala	Arg	Met	Leu	Gly
				305					310					315

Arg Val

<210> 117

<211> 2121

<212> DNA

<213> Homo Sapien

<400> 117

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 cacatgccaa gtggtggcgt tcctcctgtc catcctgggg ctggccggct 150  
 gcatcgcggc caccgggatg gacatgtgga gcacccagga cctgtacgac 200  
 aaccccgta cctccgtgtt ccagtacgaa gggctctgga ggagctgcgt 250  
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 ccgggatcat gttcattgtc tcaggctctt gtgcaattgc tggagtgtct 500  
 gtgtttgcca acatgctggg gactaacttc tggatgtcca cagctaacat 550  
 gtacaccggc atgggtggga tgggtgcagac tgttcagacc aggtacacat 600  
 ttggtgcggc tctgttcgtg ggctgggtcg ctggaggcct cacactaatt 650  
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 caactacaaa gccgtttctt atcatgcctc aggccacagt gttgcctaca 750  
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 aagaagatat acgatggagg tgccgcaca gaggacgagg tacaatctta 850  
 tccttccaag cacgactatg tgtaatgctc taagacctct cagcacgggc 900  
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 catctttgga gaggccaaat ggtcttagcc tcagtctctg tctctaaata 1050  
 ttccaccata aaacagctga gttatttatg aattagaggc tatagctcac 1100  
 attttcaatc ctctatttct ttttttaaata ataactttct actctgatga 1150  
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 cccctcttc ctctagtca ataaacccat tgatgatcta tttcccagct 1250  
 tatccccaag aaaacttttg aaaggaaaga gtagaccxaa agatgttatt 1300  
 ttctgctgtt tgaattttgt cccccaccc ccaacttggc tagtaataaa 1350  
 cacttactga agaagaagca ataagagaaa gatatttgta atctctccag 1400  
 cccatgatct cgggttttctt aactgtgat cttaaaagtt accaaaccaa 1450

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 atttttttta atttaagtcc taaatatagt taaaataaat aatgttttag 1650  
 taaaatgata cactatctct gtgaaatagc ctcacccta catgtggata 1700  
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 agcactttgg gaggctgagg aggaaggatc acttgagccc agaagttcga 1850  
 gactagcctg ggcaacatgg agaagccctg tctctacaaa atacagagag 1900  
 aaaaaatcag ccagtcatgg tggcatacac ctgtagtccc agcattccgg 1950  
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 gagccatgat cacaccactg cactccagcc aggtgacata gcgagatcct 2050  
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 aggttaaaac taattcttta a 2121

<210> 118

<211> 261

<212> PRT

<213> Homo Sapien

<400> 118

Met	Ser	Thr	Thr	Thr	Cys	Gln	Val	Val	Ala	Phe	Leu	Leu	Ser	Ile
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Leu	Gly	Leu	Ala	Gly	Cys	Ile	Ala	Ala	Thr	Gly	Met	Asp	Met	Trp
				20					25					30
Ser	Thr	Gln	Asp	Leu	Tyr	Asp	Asn	Pro	Val	Thr	Ser	Val	Phe	Gln
				35					40					45
Tyr	Glu	Gly	Leu	Trp	Arg	Ser	Cys	Val	Arg	Gln	Ser	Ser	Gly	Phe
				50					55					60
Thr	Glu	Cys	Arg	Pro	Tyr	Phe	Thr	Ile	Leu	Gly	Leu	Pro	Ala	Met
				65					70					75
Leu	Gln	Ala	Val	Arg	Ala	Leu	Met	Ile	Val	Gly	Ile	Val	Leu	Gly
				80					85					90
Ala	Ile	Gly	Leu	Leu	Val	Ser	Ile	Phe	Ala	Leu	Lys	Cys	Ile	Arg
				95					100					105
Ile	Gly	Ser	Met	Glu	Asp	Ser	Ala	Lys	Ala	Asn	Met	Thr	Leu	Thr
				110					115					120

Ser Gly Ile Met Phe Ile Val Ser Gly Leu Cys Ala Ile Ala Gly		
	125	135
Val Ser Val Phe Ala Asn Met Leu Val Thr Asn Phe Trp Met Ser		
	140	150
Thr Ala Asn Met Tyr Thr Gly Met Gly Gly Met Val Gln Thr Val		
	155	165
Gln Thr Arg Tyr Thr Phe Gly Ala Ala Leu Phe Val Gly Trp Val		
	170	180
Ala Gly Gly Leu Thr Leu Ile Gly Gly Val Met Met Cys Ile Ala		
	185	195
Cys Arg Gly Leu Ala Pro Glu Glu Thr Asn Tyr Lys Ala Val Ser		
	200	210
Tyr His Ala Ser Gly His Ser Val Ala Tyr Lys Pro Gly Gly Phe		
	215	225
Lys Ala Ser Thr Gly Phe Gly Ser Asn Thr Lys Asn Lys Lys Ile		
	230	240
Tyr Asp Gly Gly Ala Arg Thr Glu Asp Glu Val Gln Ser Tyr Pro		
	245	255
Ser Lys His Asp Tyr Val		
	260	

<210> 119  
 <211> 2010  
 <212> DNA  
 <213> Homo Sapien

<400> 119  
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 caacccatgc cttagaaatc gctgggctgt ttcttggtgg tgttggaatg 150  
 gtgggcacag tggctgtcac tgtcatgcct cagtggagag tgtcggcctt 200  
 cattgaaaac aacatcgtgg tttttgaaaa cttctgggaa ggactgtgga 250  
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 tccctgctgg ctctttctcc ggacctacag gcagccagag gactgatgtg 350  
 tgctgcttcc gtgatgtcct tcttggttt catgatggcc atccttgga 400  
 tgaaatgcac caggtgcacg ggggacaatg agaaggtgaa ggctcacatt 450  
 ctgctgacgg ctggaatcat cttcatcatc acgggcatgg tggtgctcat 500



ccctgtgagc tgggttgcca atgccatcat cagagatttc tataactcaa 550  
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 tggaccacgg cactggtgct gattggttga ggagctctgt tctgctgcgt 650  
 tttttgttgc aacgaaaaga gcagtagcta cagatactcg ataccttccc 700  
 atcgcacaa ccaaaaaagt tatcacaccg gaaagaagtc accgagcgtc 750  
 tactccagaa gtcagtatgt gtagttgtgt atgttttttt aactttacta 800  
 taaagccatg caaatgacaa aaatctatat tactttctca aaatggaccc 850  
 caaagaaact ttgatttact gttcttaact gcctaattctt aattacagga 900  
 actgtgcac agctattttat gattctataa gctatttcag cagaatgaga 950  
 tattaaaccc aatgctttga ttgttctaga aagtatagta atttgttttc 1000  
 taaggtggtt caagcatcta ctctttttat catttacttc aaaatgacat 1050  
 tgctaaagac tgcattatth tactactgta atttctccac gacatagcat 1100  
 tatgtacata gatgagtgt acatttatat ctcacataga gacatgctta 1150  
 tatggtttta tttaaaatga aatgccagtc cattacactg aataaataga 1200  
 actcaactat tgcttttcag ggaaatcatg gatagggttg aagaaggtta 1250  
 ctattaattg tttaaaaaca gcttagggat taatgtcctc catttataat 1300  
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 gttttaggaa agtgaaaata tttttgtttt tgtatttgaa gaagaatgat 1600  
 gcattttgac aagaaatcat atatgtatgg atatatttta ataagtattt 1650  
 gagtacagac tttgaggttt catcaatata aataaaagag cagaaaaata 1700  
 tgtcttggtt ttcatttgct taccaaaaaa acaacaacaa aaaaagttgt 1750  
 cctttgagaa cttcacctgc tcctatgtgg gtacctgagt caaaattgtc 1800  
 atttttgttc tgtgaaaaat aaatttcctt cttgtaccat ttctgtttag 1850  
 ttttactaaa atctgtaaat actgtatttt tctgtttatt ccaaatttga 1900  
 tgaaactgac aatccaattt gaaagtttgt gtcgacgtct gtctagctta 1950

aatgaatgtg ttctatttgc tttatacatt tatattaata aattgtacat 2000

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<210> 120

<211> 225

<212> PRT

<213> Homo Sapien

<400> 120

Met	Ala	Thr	His	Ala	Leu	Glu	Ile	Ala	Gly	Leu	Phe	Leu	Gly	Gly
1				5					10					15

Val	Gly	Met	Val	Gly	Thr	Val	Ala	Val	Thr	Val	Met	Pro	Gln	Trp
				20					25					30

Arg	Val	Ser	Ala	Phe	Ile	Glu	Asn	Asn	Ile	Val	Val	Phe	Glu	Asn
				35					40					45

Phe	Trp	Glu	Gly	Leu	Trp	Met	Asn	Cys	Val	Arg	Gln	Ala	Asn	Ile
				50					55					60

Arg	Met	Gln	Cys	Lys	Ile	Tyr	Asp	Ser	Leu	Leu	Ala	Leu	Ser	Pro
				65					70					75

Asp	Leu	Gln	Ala	Ala	Arg	Gly	Leu	Met	Cys	Ala	Ala	Ser	Val	Met
				80					85					90

Ser	Phe	Leu	Ala	Phe	Met	Met	Ala	Ile	Leu	Gly	Met	Lys	Cys	Thr
				95					100					105

Arg	Cys	Thr	Gly	Asp	Asn	Glu	Lys	Val	Lys	Ala	His	Ile	Leu	Leu
				110					115					120

Thr	Ala	Gly	Ile	Ile	Phe	Ile	Ile	Thr	Gly	Met	Val	Val	Leu	Ile
				125					130					135

Pro	Val	Ser	Trp	Val	Ala	Asn	Ala	Ile	Ile	Arg	Asp	Phe	Tyr	Asn
				140					145					150

Ser	Ile	Val	Asn	Val	Ala	Gln	Lys	Arg	Glu	Leu	Gly	Glu	Ala	Leu
				155					160					165

Tyr	Leu	Gly	Trp	Thr	Thr	Ala	Leu	Val	Leu	Ile	Val	Gly	Gly	Ala
				170					175					180

Leu	Phe	Cys	Cys	Val	Phe	Cys	Cys	Asn	Glu	Lys	Ser	Ser	Ser	Tyr
				185					190					195

Arg	Tyr	Ser	Ile	Pro	Ser	His	Arg	Thr	Thr	Gln	Lys	Ser	Tyr	His
				200					205					210

Thr	Gly	Lys	Lys	Ser	Pro	Ser	Val	Tyr	Ser	Arg	Ser	Gln	Tyr	Val
				215					220					225

<210> 121

<211> 1257  
<212> DNA  
<213> Homo Sapien

<400> 121  
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cggagcgcgg cggagccaga cgctgaccac gttcctctcc tcggtctcct 100  
ccgcctccag ctccgcgctg cccggcagcc gggagccatg cgaccccagg 150  
gccccgcgcg cccccgcag cggctccgcg gcctcctgct gctcctgctg 200  
ctgcagctgc ccgcgccgtc gagcgcctct gagatcccca aggggaagca 250  
aaaggcgcag ctccggcaga gggaggtggt ggacctgtat aatggaatgt 300  
gcttacaagg gccagcagga gtgcctggtc gagacgggag ccctggggcc 350  
aatgttattc cgggtacacc tgggatccca ggtcgggatg gattcaaagg 400  
agaaaagggg gaatgtctga gggaaagctt tgaggagtcc tggacacca 450  
actacaagca gtgttcattg agttcattga attatggcat agatcttggg 500  
aaaattgcgg agtgtacatt taaaaagatg cgttcaaata gtgctctaag 550  
agttttgttc agtggctcac ttcggctaaa atgcagaaat gcatgctgtc 600  
agcgttggtg tttcacattc aatggagctg aatgttcagg acctcttccc 650  
attgaagcta taatttat tggaccaagga agccctgaaa tgaattcaac 700  
aattaatatt catcgcactt cttctgtgga aggactttgt gaaggaattg 750  
gtgctggatt agtggatggt gctatctggg ttggcacttg ttcagattac 800  
ccaaaaggag atgcttctac tggatggaat tcagtttctc gcatcattat 850  
tgaagaacta ccaaaataaa tgctttaatt ttcatttgct acctcttttt 900  
ttattatgcc ttggaatggt tcacttaaat gacattttta ataagtttat 950  
gtatacatct gaatgaaaag caaagctaaa tatgtttaca gaccaaagtg 1000  
tgatttcaca ctgtttttta atctagcatt attcattttg cttcaatcaa 1050  
aagtggtttc aatatttttt ttagttgggt agaatacttt cttcatagtc 1100  
acattctctc aacctataat ttggaatatt gttgtggtct tttgtttttt 1150  
ctcttagtat agcattttta aaaaaatata aaagctacca atctttgtac 1200  
aatttgtaaa tgttaagaat tttttttata tctgttaaatt aaaaattatt 1250  
tccaaca 1257

<210> 122

<211> 243  
 <212> PRT  
 <213> Homo Sapien

<400> 122

Met	Arg	Pro	Gln	Gly	Pro	Ala	Ala	Ser	Pro	Gln	Arg	Leu	Arg	Gly	1	5	10	15
Leu	Leu	Leu	Leu	Leu	Leu	Leu	Gln	Leu	Pro	Ala	Pro	Ser	Ser	Ala	20	25	30	
Ser	Glu	Ile	Pro	Lys	Gly	Lys	Gln	Lys	Ala	Gln	Leu	Arg	Gln	Arg	35	40	45	
Glu	Val	Val	Asp	Leu	Tyr	Asn	Gly	Met	Cys	Leu	Gln	Gly	Pro	Ala	50	55	60	
Gly	Val	Pro	Gly	Arg	Asp	Gly	Ser	Pro	Gly	Ala	Asn	Val	Ile	Pro	65	70	75	
Gly	Thr	Pro	Gly	Ile	Pro	Gly	Arg	Asp	Gly	Phe	Lys	Gly	Glu	Lys	80	85	90	
Gly	Glu	Cys	Leu	Arg	Glu	Ser	Phe	Glu	Glu	Ser	Trp	Thr	Pro	Asn	95	100	105	
Tyr	Lys	Gln	Cys	Ser	Trp	Ser	Ser	Leu	Asn	Tyr	Gly	Ile	Asp	Leu	110	115	120	
Gly	Lys	Ile	Ala	Glu	Cys	Thr	Phe	Thr	Lys	Met	Arg	Ser	Asn	Ser	125	130	135	
Ala	Leu	Arg	Val	Leu	Phe	Ser	Gly	Ser	Leu	Arg	Leu	Lys	Cys	Arg	140	145	150	
Asn	Ala	Cys	Cys	Gln	Arg	Trp	Tyr	Phe	Thr	Phe	Asn	Gly	Ala	Glu	155	160	165	
Cys	Ser	Gly	Pro	Leu	Pro	Ile	Glu	Ala	Ile	Ile	Tyr	Leu	Asp	Gln	170	175	180	
Gly	Ser	Pro	Glu	Met	Asn	Ser	Thr	Ile	Asn	Ile	His	Arg	Thr	Ser	185	190	195	
Ser	Val	Glu	Gly	Leu	Cys	Glu	Gly	Ile	Gly	Ala	Gly	Leu	Val	Asp	200	205	210	
Val	Ala	Ile	Trp	Val	Gly	Thr	Cys	Ser	Asp	Tyr	Pro	Lys	Gly	Asp	215	220	225	
Ala	Ser	Thr	Gly	Trp	Asn	Ser	Val	Ser	Arg	Ile	Ile	Ile	Glu	Glu	230	235	240	
Leu	Pro	Lys																

<210> 123

<211> 2379  
<212> DNA  
<213> Homo Sapien

<400> 123  
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agctctgtgg ctgaactggg tgctcatcac gggaactgct gggctatgga 100  
atacagatgt ggcagctcag gtagcccaa attgcctgga agaatacatc 150  
atgttttttcg ataagaagaa attgtaggat ccagtttttt ttttaaccgc 200  
cccctcccca cccccaaaa aaactgtaaa gatgcaaaaa cgtaatatcc 250  
atgaagatcc tattacctag gaagattttg atgttttgct gcgaatgcgg 300  
tgttgggatt tatttgttct tggagtgttc tgcgtggctg gcaaagaata 350  
atgttcctaaa atcgggtccat ctcccaaggg gtccaatttt tcttcctggg 400  
tgtcagcgag cctgactca ctacagtga gctgacaggg gctgtcatgc 450  
aactggcccc taagccaaag caaaagacct aaggacgacc tttgaacaat 500  
acaaaggatg ggtttcaatg taattaggct actgagcggg tcagctgtag 550  
cactggttat agccccact gtcttactga caatgctttc ttctgccgaa 600  
cgaggatgcc ctaagggtg taggtgtgaa ggcaaatgg tatattgtga 650  
atctcagaaa ttacaggaga taccctcaag tataatctgct ggttgcttag 700  
gtttgtccct tcgtataac agccttcaaa aacttaagta taatcaattt 750  
aaagggtca accagctcac ctggctatac cttgaccata accatatcag 800  
caatattgac gaaaatgctt ttaatggaat acgcagactc aaagagctga 850  
ttcttagttc caatagaatc tcctattttc ttaacaatac cttcagacct 900  
gtgacaaatt tacggaactt ggatctgtcc tataatcagc tgcattctct 950  
gggatctgaa cagtttcggg gcttgcgga gctgctgagt ttacatttac 1000  
ggctctaactc cctgagaacc atccctgtgc gaatattcca agactgccgc 1050  
aacctggaac ttttggaact gggatataac cggatccgaa gtttagccag 1100  
gaatgtcttt gctggcatga tcagactcaa agaacttcac ctggagcaca 1150  
atcaattttc caagctcaac ctggcccttt ttccaagggt ggtcagcctt 1200  
cagaaccttt acttgcatg gaataaaatc agtgtcatag gacagaccat 1250  
gtcctggacc tggagctcct taaaagggt tgatttatca ggcaatgaga 1300  
tcgaagcttt cagtggacct agtggtttcc agtgtgtccc gaatctgcag 1350

cgctcaacc tggattccaa caagctcaca tttattggtc aagagatttt 1400  
 ggattcttgg atatccctca atgacatcag tcttgctggg aatatatggg 1450  
 aatgcagcag aaatatttgc tcccttgtaa actggctgaa aagttttaaa 1500  
 ggtctaaggg agaatacaat tatctgtgcc agtcccaaag agctgcaagg 1550  
 agtaaagtgt atcgatgcag tgaagaacta cagcatctgt ggcaaaagta 1600  
 ctacagagag gtttgatctg gccagggctc tcccaaagcc gacgtttaag 1650  
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 tctctttcca taaaatcatc gcgggcagcg tggcgctttt cctgtccgtg 1800  
 ctcgatcatc tgctggttat ctacgtgtca tggaagcggg accctgagag 1850  
 catgaagcag ctgcagcagc gctccctcat gcgaaggcac agggaaaaga 1900  
 aaagacagtc cctaaagcaa atgactccca gcaccagga attttatgta 1950  
 gattataaac ccaccaacac ggagaccagc gagatgctgc tgaatgggac 2000  
 gggaccctgc acctataaca aatcgggctc cagggaagtgt gaggtatgaa 2050  
 ccattgtgat aaaaagagct cttaaaagct gggaaataag tgggtgcttta 2100  
 ttgaactctg gtgactatca agggaaacgc atgccccccc tccccttccc 2150  
 tctccctctc actttgggtg caagatcctt ccttgctcgt tttagtgcac 2200  
 tcataatact ggtcattttc ctctcatata taatcaaccc attgaaattt 2250  
 aaataccaca atcaatgtga agcttgaact ccggtttaat ataataccta 2300  
 ttgtataaga ccctttactg attccattaa tgtcgcatctt gttttaagat 2350  
 aaaacttctt tcataggtaa aaaaaaaaaa 2379

<210> 124

<211> 513

<212> PRT

<213> Homo Sapien

<400> 124

Met	Gly	Phe	Asn	Val	Ile	Arg	Leu	Leu	Ser	Gly	Ser	Ala	Val	Ala
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Leu	Val	Ile	Ala	Pro	Thr	Val	Leu	Leu	Thr	Met	Leu	Ser	Ser	Ala
				20				25					30	
Glu	Arg	Gly	Cys	Pro	Lys	Gly	Cys	Arg	Cys	Glu	Gly	Lys	Met	Val
				35				40					45	

Tyr	Cys	Glu	Ser	Gln	Lys	Leu	Gln	Glu	Ile	Pro	Ser	Ser	Ile	Ser	
				50					55					60	
Ala	Gly	Cys	Leu	Gly	Leu	Ser	Leu	Arg	Tyr	Asn	Ser	Leu	Gln	Lys	
				65					70					75	
Leu	Lys	Tyr	Asn	Gln	Phe	Lys	Gly	Leu	Asn	Gln	Leu	Thr	Trp	Leu	
				80					85					90	
Tyr	Leu	Asp	His	Asn	His	Ile	Ser	Asn	Ile	Asp	Glu	Asn	Ala	Phe	
				95					100					105	
Asn	Gly	Ile	Arg	Arg	Leu	Lys	Glu	Leu	Ile	Leu	Ser	Ser	Asn	Arg	
				110					115					120	
Ile	Ser	Tyr	Phe	Leu	Asn	Asn	Thr	Phe	Arg	Pro	Val	Thr	Asn	Leu	
				125					130					135	
Arg	Asn	Leu	Asp	Leu	Ser	Tyr	Asn	Gln	Leu	His	Ser	Leu	Gly	Ser	
				140					145					150	
Glu	Gln	Phe	Arg	Gly	Leu	Arg	Lys	Leu	Leu	Ser	Leu	His	Leu	Arg	
				155					160					165	
Ser	Asn	Ser	Leu	Arg	Thr	Ile	Pro	Val	Arg	Ile	Phe	Gln	Asp	Cys	
				170					175					180	
Arg	Asn	Leu	Glu	Leu	Leu	Asp	Leu	Gly	Tyr	Asn	Arg	Ile	Arg	Ser	
				185					190					195	
Leu	Ala	Arg	Asn	Val	Phe	Ala	Gly	Met	Ile	Arg	Leu	Lys	Glu	Leu	
				200					205					210	
His	Leu	Glu	His	Asn	Gln	Phe	Ser	Lys	Leu	Asn	Leu	Ala	Leu	Phe	
				215					220					225	
Pro	Arg	Leu	Val	Ser	Leu	Gln	Asn	Leu	Tyr	Leu	Gln	Trp	Asn	Lys	
				230					235					240	
Ile	Ser	Val	Ile	Gly	Gln	Thr	Met	Ser	Trp	Thr	Trp	Ser	Ser	Leu	
				245					250					255	
Gln	Arg	Leu	Asp	Leu	Ser	Gly	Asn	Glu	Ile	Glu	Ala	Phe	Ser	Gly	
				260					265					270	
Pro	Ser	Val	Phe	Gln	Cys	Val	Pro	Asn	Leu	Gln	Arg	Leu	Asn	Leu	
				275					280					285	
Asp	Ser	Asn	Lys	Leu	Thr	Phe	Ile	Gly	Gln	Glu	Ile	Leu	Asp	Ser	
				290					295					300	
Trp	Ile	Ser	Leu	Asn	Asp	Ile	Ser	Leu	Ala	Gly	Asn	Ile	Trp	Glu	
				305					310					315	
Cys	Ser	Arg	Asn	Ile	Cys	Ser	Leu	Val	Asn	Trp	Leu	Lys	Ser	Phe	
				320					325					330	

Lys Gly Leu Arg	Glu Asn Thr Ile Ile	Cys Ala Ser Pro Lys Glu	
	335	340	345
Leu Gln Gly Val	Asn Val Ile Asp Ala Val	Lys Asn Tyr Ser Ile	
	350	355	360
Cys Gly Lys Ser	Thr Thr Glu Arg Phe	Asp Leu Ala Arg Ala Leu	
	365	370	375
Pro Lys Pro Thr	Phe Lys Pro Lys Leu	Pro Arg Pro Lys His Glu	
	380	385	390
Ser Lys Pro Pro	Leu Pro Pro Thr Val	Gly Ala Thr Glu Pro Gly	
	395	400	405
Pro Glu Thr Asp	Ala Asp Ala Glu His	Ile Ser Phe His Lys Ile	
	410	415	420
Ile Ala Gly Ser	Val Ala Leu Phe Leu	Ser Val Leu Val Ile Leu	
	425	430	435
Leu Val Ile Tyr	Val Ser Trp Lys Arg	Tyr Pro Ala Ser Met Lys	
	440	445	450
Gln Leu Gln Gln	Arg Ser Leu Met Arg	Arg His Arg Lys Lys Lys	
	455	460	465
Arg Gln Ser Leu	Lys Gln Met Thr Pro	Ser Thr Gln Glu Phe Tyr	
	470	475	480
Val Asp Tyr Lys	Pro Thr Asn Thr Glu	Thr Ser Glu Met Leu Leu	
	485	490	495
Asn Gly Thr Gly	Pro Cys Thr Tyr Asn	Lys Ser Gly Ser Arg Glu	
	500	505	510
Cys Glu Val			

<210> 125  
 <211> 998  
 <212> DNA  
 <213> Homo Sapien

<400> 125  
 ccgttatcgt cttgcgctac tgctgaatgt ccgtcccgga ggaggaggag 50  
 aggcttttgc cgctgacca gagatggccc cgagcgagca aattcctact 100  
 gtccggctgc gcggtaccg tggccgagct agcaaccttt cccctggatc 150  
 tcacaaaaaac tcgactccaa atgcaaggag aagcagctct tgctcggttg 200  
 ggagacggtg caagagaatc tgccccctat aggggaatgg tgcgcacagc 250  
 cctagggatc attgaagagg aaggctttct aaagctttgg caaggagtga 300



caccgcgcac ttacagacac gtagtgtatt ctggaggtcg aatgggcaca 350  
tatgaacatc tccgagaggt tgtgtttggc aaaagtgaag atgagcatta 400  
tcccctttgg aaatcagtca ttggagggat gatggctggt gttattggcc 450  
agtttttagc caatccaact gacctagtga aggttcagat gcaaattggaa 500  
ggaaaaagga aactggaagg aaaaccattg cgatttcgtg gtgtacatca 550  
tgcatttgca aaaatcttag ctgaaggagg aatacgaggg ctttgggcag 600  
gctgggtacc caatatacaa agagcagcac tgggtgaatat gggagattta 650  
accacttatg atacagtga acactacttg gtattgaata caccacttga 700  
ggacaatatc atgactcacg gtttatcaag tttatgttct ggactggtag 750  
cttctattct gggaacacca gccgatgtca tcaaaagcag aataatgaat 800  
caaccacgag ataaacaagg aaggggactt ttgtataaat catcgactga 850  
ctgcttgatt caggctgttc aaggtgaagg attcatgagt ctatataaag 900  
gctttttacc atcttggtg agaatgaccc cttggtcaat ggtgttctgg 950  
cttacttatg aaaaaatcag agagatgagt ggagtcagtc cattttaa 998

<210> 126

<211> 323

<212> PRT

<213> Homo Sapien

<400> 126

Met	Ser	Val	Pro	Glu	Glu	Glu	Glu	Arg	Leu	Leu	Pro	Leu	Thr	Gln
1				5					10					15
Arg	Trp	Pro	Arg	Ala	Ser	Lys	Phe	Leu	Leu	Ser	Gly	Cys	Ala	Ala
				20					25					30
Thr	Val	Ala	Glu	Leu	Ala	Thr	Phe	Pro	Leu	Asp	Leu	Thr	Lys	Thr
				35					40					45
Arg	Leu	Gln	Met	Gln	Gly	Glu	Ala	Ala	Leu	Ala	Arg	Leu	Gly	Asp
				50					55					60
Gly	Ala	Arg	Glu	Ser	Ala	Pro	Tyr	Arg	Gly	Met	Val	Arg	Thr	Ala
				65					70					75
Leu	Gly	Ile	Ile	Glu	Glu	Glu	Gly	Phe	Leu	Lys	Leu	Trp	Gln	Gly
				80					85					90
Val	Thr	Pro	Ala	Ile	Tyr	Arg	His	Val	Val	Tyr	Ser	Gly	Gly	Arg
				95					100					105
Met	Val	Thr	Tyr	Glu	His	Leu	Arg	Glu	Val	Val	Phe	Gly	Lys	Ser
				110					115					120

Glu Asp Glu His Tyr Pro Leu Trp Lys Ser Val Ile Gly Gly Met		
	125	130 135
Met Ala Gly Val Ile Gly Gln Phe Leu Ala Asn Pro Thr Asp Leu		
	140	145 150
Val Lys Val Gln Met Gln Met Glu Gly Lys Arg Lys Leu Glu Gly		
	155	160 165
Lys Pro Leu Arg Phe Arg Gly Val His His Ala Phe Ala Lys Ile		
	170	175 180
Leu Ala Glu Gly Gly Ile Arg Gly Leu Trp Ala Gly Trp Val Pro		
	185	190 195
Asn Ile Gln Arg Ala Ala Leu Val Asn Met Gly Asp Leu Thr Thr		
	200	205 210
Tyr Asp Thr Val Lys His Tyr Leu Val Leu Asn Thr Pro Leu Glu		
	215	220 225
Asp Asn Ile Met Thr His Gly Leu Ser Ser Leu Cys Ser Gly Leu		
	230	235 240
Val Ala Ser Ile Leu Gly Thr Pro Ala Asp Val Ile Lys Ser Arg		
	245	250 255
Ile Met Asn Gln Pro Arg Asp Lys Gln Gly Arg Gly Leu Leu Tyr		
	260	265 270
Lys Ser Ser Thr Asp Cys Leu Ile Gln Ala Val Gln Gly Glu Gly		
	275	280 285
Phe Met Ser Leu Tyr Lys Gly Phe Leu Pro Ser Trp Leu Arg Met		
	290	295 300
Thr Pro Trp Ser Met Val Phe Trp Leu Thr Tyr Glu Lys Ile Arg		
	305	310 315
Glu Met Ser Gly Val Ser Pro Phe		
	320	

<210> 127

<211> 1505

<212> DNA

<213> Homo Sapien

<400> 127

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ggcgtggggc catggccagg cccggcatgg agcgggtggc cgaccggctg 150

gcgctggtga cgggggcctc ggggggcata ggcgcggccg tggcccgggc 200

cctggtccag cagggactga aggtggtggg ctgcgccgc actgtgggca 250

acatcgagga gctggctgct gaatgtaaga gtgcaggcta ccccgaggact 300  
 ttgatccctt acagatgtga cctatcaaat gaagaggaca tcctctccat 350  
 gttctcagct atccgttctc agcacagcgg tgtagacatc tgcatacaaca 400  
 atgctggctt ggcccggcct gacaccctgc tctcaggcag caccagtggg 450  
 tggaaggaca tgttcaatgt gaacgtgctg gccctcagca tctgcacacg 500  
 ggaagcctac cagtccatga aggagcggaa tgtggacgat gggcacatca 550  
 ttaacatcaa tagcatgtct ggccaccgag tgttaccctt gtctgtgacc 600  
 cacttctata gtgccaccaa gtatgccgtc actgcgctga cagagggact 650  
 gaggcaagag cttcgggagg ccagaccca catccgagcc acgtgcatct 700  
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 cctgagaagg cagctgccac ctatgagcaa atgaagtgtc tcaaaccgga 800  
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 agattggaga catccagatg aggcccacgg agcaggtgac ctagtgactg 900  
 tgggagctcc tccttccctc cccacccttc atggcttgcc tcctgcctct 950  
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 ccccgaccag gggctagaaa atttgtttga gatttttata tcattctgtc 1050  
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 gtccctaatt gttttacttg ttaacttggt cttgtgcccc tgggcacttg 1150  
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 gccaaaatcc ccatcttctt gcacctcaac gtctgtggct cagggctggg 1250  
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 atccctccac tctgactctg actatggcag cagaacacca gggcctggcc 1450  
 cagtggattt catggtgatc attaaaaaag aaaaatcgca accaaaaaaa 1500  
 aaaaa 1505

<210> 128  
 <211> 260  
 <212> PRT  
 <213> Homo Sapien

<400> 128

Met	Ala	Arg	Pro	Gly	Met	Glu	Arg	Trp	Arg	Asp	Arg	Leu	Ala	Leu	
1				5					10					15	
Val	Thr	Gly	Ala	Ser	Gly	Gly	Ile	Gly	Ala	Ala	Val	Ala	Arg	Ala	
				20					25					30	
Leu	Val	Gln	Gln	Gly	Leu	Lys	Val	Val	Gly	Cys	Ala	Arg	Thr	Val	
				35					40					45	
Gly	Asn	Ile	Glu	Glu	Leu	Ala	Ala	Glu	Cys	Lys	Ser	Ala	Gly	Tyr	
				50					55					60	
Pro	Gly	Thr	Leu	Ile	Pro	Tyr	Arg	Cys	Asp	Leu	Ser	Asn	Glu	Glu	
				65					70					75	
Asp	Ile	Leu	Ser	Met	Phe	Ser	Ala	Ile	Arg	Ser	Gln	His	Ser	Gly	
				80					85					90	
Val	Asp	Ile	Cys	Ile	Asn	Asn	Ala	Gly	Leu	Ala	Arg	Pro	Asp	Thr	
				95					100					105	
Leu	Leu	Ser	Gly	Ser	Thr	Ser	Gly	Trp	Lys	Asp	Met	Phe	Asn	Val	
				110					115					120	
Asn	Val	Leu	Ala	Leu	Ser	Ile	Cys	Thr	Arg	Glu	Ala	Tyr	Gln	Ser	
				125					130					135	
Met	Lys	Glu	Arg	Asn	Val	Asp	Asp	Gly	His	Ile	Ile	Asn	Ile	Asn	
				140					145					150	
Ser	Met	Ser	Gly	His	Arg	Val	Leu	Pro	Leu	Ser	Val	Thr	His	Phe	
				155					160					165	
Tyr	Ser	Ala	Thr	Lys	Tyr	Ala	Val	Thr	Ala	Leu	Thr	Glu	Gly	Leu	
				170					175					180	
Arg	Gln	Glu	Leu	Arg	Glu	Ala	Gln	Thr	His	Ile	Arg	Ala	Thr	Cys	
				185					190					195	
Ile	Ser	Pro	Gly	Val	Val	Glu	Thr	Gln	Phe	Ala	Phe	Lys	Leu	His	
				200					205					210	
Asp	Lys	Asp	Pro	Glu	Lys	Ala	Ala	Ala	Thr	Tyr	Glu	Gln	Met	Lys	
				215					220					225	
Cys	Leu	Lys	Pro	Glu	Asp	Val	Ala	Glu	Ala	Val	Ile	Tyr	Val	Leu	
				230					235					240	
Ser	Thr	Pro	Ala	His	Ile	Gln	Ile	Gly	Asp	Ile	Gln	Met	Arg	Pro	
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Thr	Glu	Gln	Val	Thr											
				260											

<210> 129

<211> 1177

<212> DNA

<213> Homo Sapien

<400> 129

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ctgctcagag ggctcggcc cagaattcca gttctggttt catgccagcc 200  
tgtaaaaggc catggaactt tgggtgaatc accgatgcc ttttaagagg 250  
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tacaatatat aatgatcaaa tcagggtaac tgggatatcc atcacatcaa 500  
acatttattt tttattcttt ttagacagag tctcactctg tcaccaggc 550  
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gccatgttgc ccaggctggc cttgaactcc tggcctcaaa caatccactt 750  
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<210> 130

<211> 111

<212> PRT

<213> Homo Sapien

<400> 130

Met Gly Leu Leu Leu Leu Val Leu Phe Leu Ser Leu Leu Pro Val

1	5	10	15
Ala Tyr Thr Ile Met Ser Leu Pro Pro Ser Phe Asp Cys Gly Pro	20	25	30
Phe Arg Cys Arg Val Ser Val Ala Arg Glu His Leu Pro Ser Arg	35	40	45
Gly Ser Leu Leu Arg Gly Pro Arg Pro Arg Ile Pro Val Leu Val	50	55	60
Ser Cys Gln Pro Val Lys Gly His Gly Thr Leu Gly Glu Ser Pro	65	70	75
Met Pro Phe Lys Arg Val Phe Cys Gln Asp Gly Asn Val Arg Ser	80	85	90
Phe Cys Val Cys Ala Val His Phe Ser Ser His Gln Pro Pro Val	95	100	105
Ala Val Glu Cys Leu Lys	110		

<210> 131  
 <211> 2061  
 <212> DNA  
 <213> Homo Sapien

<400> 131  
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 tgtgtcgctg cgatgcgggt ttcatttact gtaatgatcg ctttctgaca 200  
 tccattccaa caggaatacc agaggatgct acaactctct accttcagaa 250  
 caaccaaata aataatgctg ggattccttc agatttgaaa aacttgctga 300  
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 gaagctacag agacagtggg attccagact cagatcactc acactcatga 2000  
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<210> 132

<400> 132

<400> 132

<400> 132

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Gly Leu Phe Leu Gln Val Ala Pro Leu Ser Val Met Ala Lys Ser  
20 25 30

Cys Pro Ser Val Cys Arg Cys Asp Ala Gly Phe Ile Tyr Cys Asn  
35 40 45

Asp Arg Phe Leu Thr Ser Ile Pro Thr Gly Ile Pro Glu Asp Ala  
50 55 60

Thr Thr Leu Tyr Leu Gln Asn Asn Gln Ile Asn Asn Ala Gly Ile  
65 70 75

Pro Ser Asp Leu Lys Asn Leu Leu Lys Val Glu Arg Ile Tyr Leu  
80 85 90

Tyr His Asn Ser Leu Asp Glu Phe Pro Thr Asn Leu Pro Lys Tyr  
95 100 105

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Val Lys Glu Leu His Leu Gln Glu Asn Asn Ile Arg Thr Ile Thr
      110                      115                      120
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Tyr Asp Ser Leu Ser Lys Ile Pro Tyr Leu Glu Glu Leu His Leu  
125 130 135

Asp Asp Asn Ser Val Ser Ala Val Ser Ile Glu Glu Gly Ala Phe  
140 145 150

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Arg Asp Ser Asn Tyr Leu Arg Leu Leu Phe Leu Ser Arg Asn His
          155                      160                      165

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Leu Ser Thr Ile Pro Trp Gly Leu Pro Arg Thr Ile Glu Glu Leu  
170 175 180

Arg Leu Asp Asp Asn Arg Ile Ser Thr Ile Ser Ser Pro Ser Leu  
185 190 195

Gln Gly Leu Thr Ser Leu Lys Arg Leu Val Leu Asp Gly Asn Leu  
200 205 210

Leu Asn Asn His Gly Leu Gly Asp Lys Val Phe Phe Asn Leu Val  
215 220 225

Asn Leu Thr Glu Leu Ser Leu Val Arg Asn Ser Leu Thr Ala Ala  
230 235 240

Pro Val Asn Leu Pro Gly Thr Asn Leu Arg Lys Leu Tyr Leu Gln  
245 250 255

Asp Asn His Ile Asn Arg Val Pro Pro Asn Ala Phe Ser Tyr Leu



260	265	270
Arg Gln Leu Tyr	Arg Leu Asp Met Ser Asn Asn Asn Leu Ser Asn	
275	280	285
Leu Pro Gln Gly	Ile Phe Asp Asp Leu Asp Asn Ile Thr Gln Leu	
290	295	300
Ile Leu Arg Asn	Asn Pro Trp Tyr Cys Gly Cys Lys Met Lys Trp	
305	310	315
Val Arg Asp Trp	Leu Gln Ser Leu Pro Val Lys Val Asn Val Arg	
320	325	330
Gly Leu Met Cys	Gln Ala Pro Glu Lys Val Arg Gly Met Ala Ile	
335	340	345
Lys Asp Leu Asn	Ala Glu Leu Phe Asp Cys Lys Asp Ser Gly Ile	
350	355	360
Val Ser Thr Ile	Gln Ile Thr Thr Ala Ile Pro Asn Thr Val Tyr	
365	370	375
Pro Ala Gln Gly	Gln Trp Pro Ala Pro Val Thr Lys Gln Pro Asp	
380	385	390
Ile Lys Asn Pro	Lys Leu Thr Lys Asp Gln Gln Thr Thr Gly Ser	
395	400	405
Pro Ser Arg Lys	Thr Ile Thr Ile Thr Val Lys Ser Val Thr Ser	
410	415	420
Asp Thr Ile His	Ile Ser Trp Lys Leu Ala Leu Pro Met Thr Ala	
425	430	435
Leu Arg Leu Ser	Trp Leu Lys Leu Gly His Ser Pro Ala Phe Gly	
440	445	450
Ser Ile Thr Glu	Thr Ile Val Thr Gly Glu Arg Ser Glu Tyr Leu	
455	460	465
Val Thr Ala Leu	Glu Pro Asp Ser Pro Tyr Lys Val Cys Met Val	
470	475	480
Pro Met Glu Thr	Ser Asn Leu Tyr Leu Phe Asp Glu Thr Pro Val	
485	490	495
Cys Ile Glu Thr	Glu Thr Ala Pro Leu Arg Met Tyr Asn Pro Thr	
500	505	510
Thr Thr Leu Asn	Arg Glu Gln Glu Lys Glu Pro Tyr Lys Asn Pro	
515	520	525
Asn Leu Pro Leu	Ala Ala Ile Ile Gly Gly Ala Val Ala Leu Val	
530	535	540
Thr Ile Ala Leu	Leu Ala Leu Val Cys Trp Tyr Val His Arg Asn	

	545		550		555
Gly Ser Leu Phe	Ser Arg Asn Cys Ala	Tyr Ser Lys Gly Arg Arg			
	560	565	570		
Arg Lys Asp Asp	Tyr Ala Glu Ala Gly	Thr Lys Lys Asp Asn Ser			
	575	580	585		
Ile Leu Glu Ile	Arg Glu Thr Ser Phe	Gln Met Leu Pro Ile Ser			
	590	595	600		
Asn Glu Pro Ile	Ser Lys Glu Glu Phe	Val Ile His Thr Ile Phe			
	605	610	615		
Pro Pro Asn Gly	Met Asn Leu Tyr Lys	Asn Asn His Ser Glu Ser			
	620	625	630		
Ser Ser Asn Arg	Ser Tyr Arg Asp Ser	Gly Ile Pro Asp Ser Asp			
	635	640	645		
His Ser His Ser					

<210> 133

<211> 1882

<212> DNA

<213> Homo Sapien

<400> 133

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<210> 134

<211> 440

<212> PRT

<213> Homo Sapien

<400> 134

Met	Ser	Ala	Arg	Gly	Arg	Trp	Glu	Gly	Gly	Gly	Arg	Arg	Ala	Cys
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Arg	Gly	Ser	Leu	Gly	Leu	Ala	Arg	Ala	Gln	Gly	Ala	Glu	Arg	Val
				20					25					30

Thr	Ser	Ser	Glu	Gln	Arg	Pro	Ala	Met	Ala	Ser	Leu	Gly	Leu	Leu		35	40	45
Leu	Leu	Leu	Leu	Leu	Thr	Ala	Leu	Pro	Pro	Leu	Trp	Ser	Ser	Ser		50	55	60
Leu	Pro	Gly	Leu	Asp	Thr	Ala	Glu	Ser	Lys	Ala	Thr	Ile	Ala	Asp		65	70	75
Leu	Ile	Leu	Ser	Ala	Leu	Glu	Arg	Ala	Thr	Val	Phe	Leu	Glu	Gln		80	85	90
Arg	Leu	Pro	Glu	Ile	Asn	Leu	Asp	Gly	Met	Val	Gly	Val	Arg	Val		95	100	105
Leu	Glu	Glu	Gln	Leu	Lys	Ser	Val	Arg	Glu	Lys	Trp	Ala	Gln	Glu		110	115	120
Pro	Leu	Leu	Gln	Pro	Leu	Ser	Leu	Arg	Val	Gly	Met	Leu	Gly	Glu		125	130	135
Lys	Leu	Glu	Ala	Ala	Ile	Gln	Arg	Ser	Leu	His	Tyr	Leu	Lys	Leu		140	145	150
Ser	Asp	Pro	Lys	Tyr	Leu	Arg	Glu	Phe	Gln	Leu	Thr	Leu	Gln	Pro		155	160	165
Gly	Phe	Trp	Lys	Leu	Pro	His	Ala	Trp	Ile	His	Thr	Asp	Ala	Ser		170	175	180
Leu	Val	Tyr	Pro	Thr	Phe	Gly	Pro	Gln	Asp	Ser	Phe	Ser	Glu	Glu		185	190	195
Arg	Ser	Asp	Val	Cys	Leu	Val	Gln	Leu	Leu	Gly	Thr	Gly	Thr	Asp		200	205	210
Ser	Ser	Glu	Pro	Cys	Gly	Leu	Ser	Asp	Leu	Cys	Arg	Ser	Leu	Met		215	220	225
Thr	Lys	Pro	Gly	Cys	Ser	Gly	Tyr	Cys	Leu	Ser	His	Gln	Leu	Leu		230	235	240
Phe	Phe	Leu	Trp	Ala	Arg	Met	Arg	Gly	Cys	Thr	Gln	Gly	Pro	Leu		245	250	255
Gln	Gln	Ser	Gln	Asp	Tyr	Ile	Asn	Leu	Phe	Cys	Ala	Asn	Met	Met		260	265	270
Asp	Leu	Asn	Arg	Arg	Ala	Glu	Ala	Ile	Gly	Tyr	Ala	Tyr	Pro	Thr		275	280	285
Arg	Asp	Ile	Phe	Met	Glu	Asn	Ile	Met	Phe	Cys	Gly	Met	Gly	Gly		290	295	300
Phe	Ser	Asp	Phe	Tyr	Lys	Leu	Arg	Trp	Leu	Glu	Ala	Ile	Leu	Ser		305	310	315

Trp Gln Lys Gln Gln Glu Gly Cys Phe Gly Glu Pro Asp Ala Glu  
 320 325 330  
 Asp Glu Glu Leu Ser Lys Ala Ile Gln Tyr Gln Gln His Phe Ser  
 335 340 345  
 Arg Arg Val Lys Arg Arg Glu Lys Gln Phe Pro Asp Ser Arg Ser  
 350 355 360  
 Val Ala Gln Ala Gly Val Gln Trp Arg Asn Leu Gly Ser Leu Gln  
 365 370 375  
 Pro Leu Pro Pro Gly Phe Lys Gln Phe Ser Cys Leu Ile Leu Pro  
 380 385 390  
 Ser Ser Trp Asp Tyr Arg Ser Val Pro Pro Tyr Leu Ala Asn Phe  
 395 400 405  
 Tyr Ile Phe Leu Val Glu Thr Gly Phe His His Val Ala His Ala  
 410 415 420  
 Gly Leu Glu Leu Leu Ile Ser Arg Asp Pro Pro Thr Ser Gly Ser  
 425 430 435  
 Gln Ser Val Gly Leu  
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<210> 135

<211> 884

<212> DNA

<213> Homo Sapien

<400> 135

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atcgcttcaa gattgagggg cgtgcagttg ttccaggggt gaagcctcag 200

gactggatct cggcgggccc agtgctggta gacggagaag agcacgtcgg 250

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cttatgtagt ggaagttgta tctccagctt acagatttga tcccgttcga 350

gtggatatca cttcgaaagg aaaaatgaga gcaagatatg tgaattacat 400

caaaacatca gaggttgtca gactgcccta tcctctccaa atgaaatctt 450

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<210> 136

<211> 242

<212> PRT

<213> Homo Sapien

<400> 136

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Leu	Leu	Ser	Gly	Asp	Val	Gln	Ser	Ser	Glu	Val	Pro	Gly	Ala	Ala
				20					25					30
Ala	Glu	Gly	Ser	Gly	Gly	Ser	Gly	Val	Gly	Ile	Gly	Asp	Arg	Phe
				35					40					45
Lys	Ile	Glu	Gly	Arg	Ala	Val	Val	Pro	Gly	Val	Lys	Pro	Gln	Asp
				50					55					60
Trp	Ile	Ser	Ala	Ala	Arg	Val	Leu	Val	Asp	Gly	Glu	Glu	His	Val
				65					70					75
Gly	Phe	Leu	Lys	Thr	Asp	Gly	Ser	Phe	Val	Val	His	Asp	Ile	Pro
				80					85					90
Ser	Gly	Ser	Tyr	Val	Val	Glu	Val	Val	Ser	Pro	Ala	Tyr	Arg	Phe
				95					100					105
Asp	Pro	Val	Arg	Val	Asp	Ile	Thr	Ser	Lys	Gly	Lys	Met	Arg	Ala
				110					115					120
Arg	Tyr	Val	Asn	Tyr	Ile	Lys	Thr	Ser	Glu	Val	Val	Arg	Leu	Pro
				125					130					135
Tyr	Pro	Leu	Gln	Met	Lys	Ser	Ser	Gly	Pro	Pro	Ser	Tyr	Phe	Ile
				140					145					150
Lys	Arg	Glu	Ser	Trp	Gly	Trp	Thr	Asp	Phe	Leu	Met	Asn	Pro	Met
				155					160					165
Val	Met	Met	Met	Val	Leu	Pro	Leu	Leu	Ile	Phe	Val	Leu	Leu	Pro
				170					175					180
Lys	Val	Val	Asn	Thr	Ser	Asp	Pro	Asp	Met	Arg	Arg	Glu	Met	Glu
				185					190					195
Gln	Ser	Met	Asn	Met	Leu	Asn	Ser	Asn	His	Glu	Leu	Pro	Asp	Val

	200		205		210
Ser Glu Phe Met Thr Arg Leu Phe Ser Ser Lys Ser Ser Gly Lys					
	215		220		225
Ser Ser Ser Gly Ser Ser Lys Thr Gly Lys Ser Gly Ala Gly Lys					
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Arg Arg

<210> 137

<211> 1571

<212> DNA

<213> Homo Sapien

<400> 137

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<210> 138  
 <211> 261  
 <212> PRT  
 <213> Homo Sapien

<400> 138  
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 35 40 45  
 Gly Ala Thr Thr Cys Ala Thr Asn Ser His Ser Asp Ser Glu Leu  
 50 55 60  
 Arg Pro Glu Ile Phe Ser Ser Arg Glu Ala Trp Gln Phe Phe Leu  
 65 70 75  
 Leu Leu Trp Ser Pro Asp Phe Arg Pro Lys Met Lys Ala Ser Ser  
 80 85 90  
 Leu Ala Phe Ser Leu Leu Ser Ala Ala Phe Tyr Leu Leu Trp Thr  
 95 100 105  
 Pro Ser Thr Gly Leu Lys Thr Leu Asn Leu Gly Ser Cys Val Ile  
 110 115 120  
 Ala Thr Asn Leu Gln Glu Ile Arg Asn Gly Phe Ser Glu Ile Arg  
 125 130 135  
 Gly Ser Val Gln Ala Lys Asp Gly Asn Ile Asp Ile Arg Ile Leu



	140		145		150
Arg Arg Thr Glu Ser Leu Gln Asp Thr Lys Pro Ala Asn Arg Cys					
	155		160		165
Cys Leu Leu Arg His Leu Leu Arg Leu Tyr Leu Asp Arg Val Phe					
	170		175		180
Lys Asn Tyr Gln Thr Pro Asp His Tyr Thr Leu Arg Lys Ile Ser					
	185		190		195
Ser Leu Ala Asn Ser Phe Leu Thr Ile Lys Lys Asp Leu Arg Leu					
	200		205		210
Ser His Ala His Met Thr Cys His Cys Gly Glu Glu Ala Met Lys					
	215		220		225
Lys Tyr Ser Gln Ile Leu Ser His Phe Glu Lys Leu Glu Pro Gln					
	230		235		240
Ala Ala Val Val Lys Ala Leu Gly Glu Leu Asp Ile Leu Leu Gln					
	245		250		255
Trp Met Glu Glu Thr Glu					
	260				

<210> 139  
 <211> 2395  
 <212> DNA  
 <213> Homo Sapien

<400> 139  
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<210> 140

<211> 310

<212> PRT

<213> Homo Sapien

<400> 140

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Glu	Val	Leu	Gly	Ile	Ala	Val	Phe	Leu	Arg	Gly	Phe	Phe	Pro	Ala
			20						25					30

Pro	Val	Arg	Ser	Ser	Ala	Arg	Ala	Glu	His	Gly	Ala	Glu	Pro	Pro
			35						40					45

Ala	Pro	Glu	Pro	Ser	Ala	Gly	Ala	Ser	Ser	Asn	Trp	Thr	Thr	Leu
			50						55					60

Pro	Pro	Pro	Leu	Phe	Ser	Lys	Val	Val	Ile	Val	Leu	Ile	Asp	Ala
			65						70					75

Leu	Arg	Asp	Asp	Phe	Val	Phe	Gly	Ser	Lys	Gly	Val	Lys	Phe	Met
			80						85					90

Pro	Tyr	Thr	Thr	Tyr	Leu	Val	Glu	Lys	Gly	Ala	Ser	His	Ser	Phe
			95						100					105

Val	Ala	Glu	Ala	Lys	Pro	Pro	Thr	Val	Thr	Met	Pro	Arg	Ile	Lys
			110						115					120

Ala	Leu	Met	Thr	Gly	Ser	Leu	Pro	Gly	Phe	Val	Asp	Val	Ile	Arg
			125						130					135

Asn	Leu	Asn	Ser	Pro	Ala	Leu	Leu	Glu	Asp	Ser	Val	Ile	Arg	Gln
			140						145					150

Ala	Lys	Ala	Ala	Gly	Lys	Arg	Ile	Val	Phe	Tyr	Gly	Asp	Glu	Thr
			155						160					165

Trp	Val	Lys	Leu	Phe	Pro	Lys	His	Phe	Val	Glu	Tyr	Asp	Gly	Thr
			170						175					180

Thr	Ser	Phe	Phe	Val	Ser	Asp	Tyr	Thr	Glu	Val	Asp	Asn	Asn	Val
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

185	190	195
Thr Arg His Leu Asp Lys Val Leu Lys Arg Gly Asp Trp Asp Ile		
200	205	210
Leu Ile Leu His Tyr Leu Gly Leu Asp His Ile Gly His Ile Ser		
215	220	225
Gly Pro Asn Ser Pro Leu Ile Gly Gln Lys Leu Ser Glu Met Asp		
230	235	240
Ser Val Leu Met Lys Ile His Thr Ser Leu Gln Ser Lys Glu Arg		
245	250	255
Glu Thr Pro Leu Pro Asn Leu Leu Val Leu Cys Gly Asp His Gly		
260	265	270
Met Ser Glu Thr Gly Ser His Gly Ala Ser Ser Thr Glu Glu Val		
275	280	285
Asn Thr Pro Leu Ile Leu Ile Ser Ser Ala Phe Glu Arg Lys Pro		
290	295	300
Gly Asp Ile Arg His Pro Lys His Val Gln		
305	310	

<210> 141

<211> 754

<212> DNA

<213> Homo Sapien

<400> 141

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tgatgttact gctgctgttg gagtacaact tccctataga aaacaactgc 150

cagcacctta agaccactca caccttcaga gtgaagaact taaacccgaa 200

gaaattcagc attcatgacc aggatcacaa agtactgggc ctggactctg 250

ggaatctcat agcagttcca gataaaaact acatacgccc agagatcttc 300

tttgcattag cctcctcctt gagctcagcc tctgcggaga aaggaagtcc 350

gattctcctg ggggtctcta aaggggagtt ttgtctctac tgtgacaagg 400

ataaaggaca aagtcattcca tcccttcagc tgaagaagga gaaactgatg 450

aagctggctg cccaaaagga atcagcacgc cggcccttca tcttttatag 500

ggctcaggtg ggctcctgga acatgctgga gtcggcggct caccctcgat 550

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agctgaaatg agccccagtg aggtcagcga ttaggaaact gccccattga 700

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cact 754

<210> 142

<211> 193

<212> PRT

<213> Homo Sapien

<400> 142

Met	Leu	Leu	Leu	Leu	Leu	Glu	Tyr	Asn	Phe	Pro	Ile	Glu	Asn	Asn
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Cys	Gln	His	Leu	Lys	Thr	Thr	His	Thr	Phe	Arg	Val	Lys	Asn	Leu
			20						25					30

Asn	Pro	Lys	Lys	Phe	Ser	Ile	His	Asp	Gln	Asp	His	Lys	Val	Leu
			35						40					45

Val	Leu	Asp	Ser	Gly	Asn	Leu	Ile	Ala	Val	Pro	Asp	Lys	Asn	Tyr
				50					55					60

Ile	Arg	Pro	Glu	Ile	Phe	Phe	Ala	Leu	Ala	Ser	Ser	Leu	Ser	Ser
				65					70					75

Ala	Ser	Ala	Glu	Lys	Gly	Ser	Pro	Ile	Leu	Leu	Gly	Val	Ser	Lys
				80					85					90

Gly	Glu	Phe	Cys	Leu	Tyr	Cys	Asp	Lys	Asp	Lys	Gly	Gln	Ser	His
				95					100					105

Pro	Ser	Leu	Gln	Leu	Lys	Lys	Glu	Lys	Leu	Met	Lys	Leu	Ala	Ala
				110					115					120

Gln	Lys	Glu	Ser	Ala	Arg	Arg	Pro	Phe	Ile	Phe	Tyr	Arg	Ala	Gln
				125					130					135

Val	Gly	Ser	Trp	Asn	Met	Leu	Glu	Ser	Ala	Ala	His	Pro	Gly	Trp
				140					145					150

Phe	Ile	Cys	Thr	Ser	Cys	Asn	Cys	Asn	Glu	Pro	Val	Gly	Val	Thr
				155					160					165

Asp	Lys	Phe	Glu	Asn	Arg	Lys	His	Ile	Glu	Phe	Ser	Phe	Gln	Pro
				170					175					180

Val	Cys	Lys	Ala	Glu	Met	Ser	Pro	Ser	Glu	Val	Ser	Asp
				185					190			

<210> 143

<211> 961

<212> DNA

<213> Homo Sapien

<400> 143

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 ctgttgccag tgtggggtga gacaagtttg tcccacaggg ctgtctgagc 150  
 agataagatt aagggctggg tctgtgctca attaactcct gtgggcacgg 200  
 gggctgggaa gagcaaagtc agcgggtgcct acagtcagca ccatgctggg 250  
 cctgccgtgg aagggaggtc tgtcctgggc gctgctgctg cttctcttag 300  
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 tgtgatgaac acaatgtcat ggctcgttac ctccctgcca cagtggagtt 400  
 tgctgtccac acattcaacc aacagagcaa ggactactat gcctacagac 450  
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 attttgcattg tgtttgagat ctgagatcag tgttttagaa aatccacaca 850  
 tcttgagcct aatcatgtag tgtagatcat taaacatcag cattttaaga 900  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 950  
 aaaaaaaaaa a 961

<210> 144

<211> 147

<212> PRT

<213> Homo Sapien

<400> 144

Met	Leu	Gly	Leu	Pro	Trp	Lys	Gly	Gly	Leu	Ser	Trp	Ala	Leu	Leu
1				5					10				15	

Leu	Leu	Leu	Leu	Gly	Ser	Gln	Ile	Leu	Leu	Ile	Tyr	Ala	Trp	His
				20					25				30	

Phe	His	Glu	Gln	Arg	Asp	Cys	Asp	Glu	His	Asn	Val	Met	Ala	Arg
				35					40				45	

Tyr	Leu	Pro	Ala	Thr	Val	Glu	Phe	Ala	Val	His	Thr	Phe	Asn	Gln
				50					55				60	

Gln	Ser	Lys	Asp	Tyr	Tyr	Ala	Tyr	Arg	Leu	Gly	His	Ile	Leu	Asn	
				65					70					75	
Ser	Trp	Lys	Glu	Gln	Val	Glu	Ser	Lys	Thr	Val	Phe	Ser	Met	Glu	
				80					85					90	
Leu	Leu	Leu	Gly	Arg	Thr	Arg	Cys	Gly	Lys	Phe	Glu	Asp	Asp	Ile	
				95					100					105	
Asp	Asn	Cys	His	Phe	Gln	Glu	Ser	Thr	Glu	Leu	Asn	Asn	Thr	Phe	
				110					115					120	
Thr	Cys	Phe	Phe	Thr	Ile	Ser	Thr	Arg	Pro	Trp	Met	Thr	Gln	Phe	
				125					130					135	
Ser	Leu	Leu	Asn	Lys	Thr	Cys	Leu	Glu	Gly	Phe	His				
				140					145						

<210> 145

<211> 1157

<212> DNA

<213> Homo Sapien

<400> 145

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gaacacatca ggcactgcgc cacctgcttc acagtacttc ccaacaactc 900  
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<210> 146

<211> 176

<212> PRT

<213> Homo Sapien

<400> 146

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Leu Leu Phe Ser His Leu Ser Ala Val Gln Thr Arg Gly Ile Lys  
 20 25 30

His Arg Ile Lys Trp Asn Arg Lys Ala Leu Pro Ser Thr Ala Gln  
 35 40 45

Ile Thr Glu Ala Gln Val Ala Glu Asn Arg Pro Gly Ala Phe Ile  
 50 55 60

Lys Gln Gly Arg Lys Leu Asp Ile Asp Phe Gly Ala Glu Gly Asn  
 65 70 75

Arg Tyr Tyr Glu Ala Asn Tyr Trp Gln Phe Pro Asp Gly Ile His  
 80 85 90

Tyr Asn Gly Cys Ser Glu Ala Asn Val Thr Lys Glu Ala Phe Val  
 95 100 105

Thr Gly Cys Ile Asn Ala Thr Gln Ala Ala Asn Gln Gly Glu Phe  
 110 115 120

Gln Lys Pro Asp Asn Lys Leu His Gln Gln Val Leu Trp Arg Leu  
 125 130 135

Val Gln Glu Leu Cys Ser Leu Lys His Cys Glu Phe Trp Leu Glu  
 140 145 150

Arg Gly Ala Gly Leu Arg Val Thr Met His Gln Pro Val Leu Leu  
 155 160 165

Cys Leu Leu Ala Leu Ile Trp Leu Met Val Lys  
 170 175



<210> 147  
 <211> 333  
 <212> DNA  
 <213> Homo Sapien

<400> 147  
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 cagaagctct cttctcttct ggccctctct ctgtcttctt tccctctttc 150  
 ttcttatttt aattagtagc atctactcag agtcatgcaa gctggaaatc 200  
 ttccattttg cttgtcagtg gggtaggtca ctgagtcctta gtttttattt 250  
 tttgaaattt caactttcag attcagggggg tacatgtgaa ggtttgtttt 300  
 atgagtatat tgcattgatgc tgagggtttgg ggt 333

<210> 148  
 <211> 73  
 <212> PRT  
 <213> Homo Sapien

<400> 148  
 Met Phe Arg Ser Ser Leu Leu Phe Trp Pro Pro Leu Cys Leu Leu  
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 20 25 30  
 Cys Lys Leu Glu Ile Phe His Phe Ala Cys Gln Trp Gly Arg Ser  
 35 40 45  
 Leu Ser Leu Ser Phe Tyr Phe Leu Lys Phe Gln Leu Ser Asp Ser  
 50 55 60  
 Gly Gly Thr Cys Glu Gly Leu Phe Tyr Glu Tyr Ile Ala  
 65 70

<210> 149  
 <211> 1893  
 <212> DNA  
 <213> Homo Sapien

<400> 149  
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 ccgtcgagtg tcagagatcc tgcagccgcc cagtcccggc cctctctccg 150  
 cccacacccc accctctctg ctcttctctgt ttttactcct ccttttcatt 200  
 cataacaaaa gctacagctc caggagccca gcgcggggct gtgaccaag 250

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<210> 150  
<211> 468  
<212> PRT  
<213> Homo Sapien

<400> 150  
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Leu His Asn Arg Glu Leu Ser Ala Glu Arg Pro Leu Asn Glu Gln  
35 40 45  
Ile Ala Glu Ala Glu Glu Asp Lys Ile Lys Lys Thr Tyr Pro Pro  
50 55 60  
Glu Asn Lys Pro Gly Gln Ser Asn Tyr Ser Phe Val Asp Asn Leu  
65 70 75  
Asn Leu Leu Lys Ala Ile Thr Glu Lys Glu Lys Ile Glu Lys Glu  
80 85 90  
Arg Gln Ser Ile Arg Ser Ser Pro Leu Asp Asn Lys Leu Asn Val  
95 100 105  
Glu Asp Val Asp Ser Thr Lys Asn Arg Lys Leu Ile Asp Asp Tyr  
110 115 120  
Asp Ser Thr Lys Ser Gly Leu Asp His Lys Phe Gln Asp Asp Pro  
125 130 135  
Asp Gly Leu His Gln Leu Asp Gly Thr Pro Leu Thr Ala Glu Asp  
140 145 150  
Ile Val His Lys Ile Ala Ala Arg Ile Tyr Glu Glu Asn Asp Arg  
155 160 165  
Ala Val Phe Asp Lys Ile Val Ser Lys Leu Leu Asn Leu Gly Leu  
170 175 180  
Ile Thr Glu Ser Gln Ala His Thr Leu Glu Asp Glu Val Ala Glu  
185 190 195  
Val Leu Gln Lys Leu Ile Ser Lys Glu Ala Asn Asn Tyr Glu Glu  
200 205 210  
Asp Pro Asn Lys Pro Thr Ser Trp Thr Glu Asn Gln Ala Gly Lys

	215		220		225
Ile Pro Glu Lys Val Thr Pro Met Ala	Ala Ile Gln Asp Gly Leu				
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Ala Lys Gly Glu Asn Asp Glu Thr Val Ser Asn Thr Leu Thr Leu					
245	250		255		
Thr Asn Gly Leu Glu Arg Arg Thr Lys Thr Tyr Ser Glu Asp Asn					
260	265		270		
Phe Glu Glu Leu Gln Tyr Phe Pro Asn Phe Tyr Ala Leu Leu Lys					
275	280		285		
Ser Ile Asp Ser Glu Lys Glu Ala Lys Glu Lys Glu Thr Leu Ile					
290	295		300		
Thr Ile Met Lys Thr Leu Ile Asp Phe Val Lys Met Met Val Lys					
305	310		315		
Tyr Gly Thr Ile Ser Pro Glu Glu Gly Val Ser Tyr Leu Glu Asn					
320	325		330		
Leu Asp Glu Met Ile Ala Leu Gln Thr Lys Asn Lys Leu Glu Lys					
335	340		345		
Asn Ala Thr Asp Asn Ile Ser Lys Leu Phe Pro Ala Pro Ser Glu					
350	355		360		
Lys Ser His Glu Glu Thr Asp Ser Thr Lys Glu Glu Ala Ala Lys					
365	370		375		
Met Glu Lys Glu Tyr Gly Ser Leu Lys Asp Ser Thr Lys Asp Asp					
380	385		390		
Asn Ser Asn Pro Gly Gly Lys Thr Asp Glu Pro Lys Gly Lys Thr					
395	400		405		
Glu Ala Tyr Leu Glu Ala Ile Arg Lys Asn Ile Glu Trp Leu Lys					
410	415		420		
Lys His Asp Lys Lys Gly Asn Lys Glu Asp Tyr Asp Leu Ser Lys					
425	430		435		
Met Arg Asp Phe Ile Asn Lys Gln Ala Asp Ala Tyr Val Glu Lys					
440	445		450		
Gly Ile Leu Asp Lys Glu Glu Ala Glu Ala Ile Lys Arg Ile Tyr					
455	460		465		

Ser Ser Leu

<210> 151  
 <211> 2598  
 <212> DNA  
 <213> Homo Sapien

<400> 151

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tattcccatg aaaaagtgt catgacatat tgagaagacc tacttacaaa 1250  
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agagactctg tgagataatc gatgtttgtt gttttaagtt gctcagtttt 2550  
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<210> 152

<211> 155

<212> PRT

<213> Homo Sapien

<400> 152

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				20					25					30
Leu	His	Ala	Gly	Lys	Val	Ile	Lys	Gly	Glu	Glu	Ile	Ser	Val	Val
				35					40					45
Pro	Asn	Arg	Trp	Leu	Asp	Ala	Ser	Leu	Ser	Pro	Val	Ile	Leu	Gly
				50					55					60
Val	Gln	Gly	Gly	Ser	Gln	Cys	Leu	Ser	Cys	Gly	Val	Gly	Gln	Glu
				65					70					75
Pro	Thr	Leu	Thr	Leu	Glu	Pro	Val	Asn	Ile	Met	Glu	Leu	Tyr	Leu
				80					85					90
Gly	Ala	Lys	Glu	Ser	Lys	Ser	Phe	Thr	Phe	Tyr	Arg	Arg	Asp	Met
				95					100					105
Gly	Leu	Thr	Ser	Ser	Phe	Glu	Ser	Ala	Ala	Tyr	Pro	Gly	Trp	Phe
				110					115					120
Leu	Cys	Thr	Val	Pro	Glu	Ala	Asp	Gln	Pro	Val	Arg	Leu	Thr	Gln
				125					130					135
Leu	Pro	Glu	Asn	Gly	Gly	Trp	Asn	Ala	Pro	Ile	Thr	Asp	Phe	Tyr
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Phe	Gln	Gln	Cys	Asp										
				155										

<210> 153

<211> 1152

<212> DNA

<213> Homo Sapien

<400> 153

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gcagccctat atcaccaacc gcaccttcat gctggctaag gaggctagct 250
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cc 1152

<210> 154  
<211> 179  
<212> PRT  
<213> Homo Sapien

<400> 154  
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Leu Ala Thr Ser Cys Leu Leu Leu Leu Ala Leu Leu Val Gln Gly  
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Gly Ala Ala Ala Pro Ile Ser Ser His Cys Arg Leu Asp Lys Ser  
35 40 45  
Asn Phe Gln Gln Pro Tyr Ile Thr Asn Arg Thr Phe Met Leu Ala  
50 55 60  
Lys Glu Ala Ser Leu Ala Asp Asn Asn Thr Asp Val Arg Leu Ile  
65 70 75  
Gly Glu Lys Leu Phe His Gly Val Ser Met Ser Glu Arg Cys Tyr  
80 85 90  
Leu Met Lys Gln Val Leu Asn Phe Thr Leu Glu Glu Val Leu Phe  
95 100 105  
Pro Gln Ser Asp Arg Phe Gln Pro Tyr Met Gln Glu Val Val Pro  
110 115 120



Phe	Leu	Ala	Arg	Leu	Ser	Asn	Arg	Leu	Ser	Thr	Cys	His	Ile	Glu
				125					130					135
Gly	Asp	Asp	Leu	His	Ile	Gln	Arg	Asn	Val	Gln	Lys	Leu	Lys	Asp
				140					145					150
Thr	Val	Lys	Lys	Leu	Gly	Glu	Ser	Gly	Glu	Ile	Lys	Ala	Ile	Gly
				155					160					165
Glu	Leu	Asp	Leu	Leu	Phe	Met	Ser	Leu	Arg	Asn	Ala	Cys	Ile	
				170					175					

<210> 155  
 <211> 1320  
 <212> DNA  
 <213> Homo Sapien

<400> 155  
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 cccagcatgt accaggtcag tgcagagggc tgcctgaggg ctgtgctgag 150  
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 tactttgggt gcattctagt gtagttacta gtcttttgac atggatgatt 1250  
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 ctttatttaa aaatgaaaaa 1320

<210> 156

<211> 177

<212> PRT

<213> Homo Sapien

<400> 156

Met	Arg	Glu	Arg	Pro	Arg	Leu	Gly	Glu	Asp	Ser	Ser	Leu	Ile	Ser	1	5	10	15
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His	Thr	Tyr	Ser	His	Trp	Pro	Ser	Cys	Cys	Pro	Ser	Lys	Gly	Gln	35	40	45	
Asp	Thr	Ser	Glu	Glu	Leu	Leu	Arg	Trp	Ser	Thr	Val	Pro	Val	Pro	50	55	60	
Pro	Leu	Glu	Pro	Ala	Arg	Pro	Asn	Arg	His	Pro	Glu	Ser	Cys	Arg	65	70	75	
Ala	Ser	Glu	Asp	Gly	Pro	Leu	Asn	Ser	Arg	Ala	Ile	Ser	Pro	Trp	80	85	90	
Arg	Tyr	Glu	Leu	Asp	Arg	Asp	Leu	Asn	Arg	Leu	Pro	Gln	Asp	Leu	95	100	105	
Tyr	His	Ala	Arg	Cys	Leu	Cys	Pro	His	Cys	Val	Ser	Leu	Gln	Thr	110	115	120	
Gly	Ser	His	Met	Asp	Pro	Arg	Gly	Asn	Ser	Glu	Leu	Leu	Tyr	His	125	130	135	
Asn	Gln	Thr	Val	Phe	Tyr	Arg	Arg	Pro	Cys	His	Gly	Glu	Lys	Gly	140	145	150	
Thr	His	Lys	Gly	Tyr	Cys	Leu	Glu	Arg	Arg	Leu	Tyr	Arg	Val	Ser	155	160	165	
Leu	Ala	Cys	Val	Cys	Val	Arg	Pro	Arg	Val	Met	Gly	170	175					

<210> 157  
<211> 1515  
<212> DNA  
<213> Homo Sapien

<400> 157  
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cgagtagaac ctgttacaac tagtggttgca acaggggact attcaatttt 200  
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gtaccacctc atgaaggatg ccaactgcttt ctgtgcagaa cttctccatg 1450  
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<210> 158  
<211> 502  
<212> PRT  
<213> Homo Sapien

<400> 158  
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20 25 30  
Ser Pro Glu Trp Met Leu Gln His Asp Leu Ile Pro Gly Asp Leu  
35 40 45  
Arg Asp Leu Arg Val Glu Pro Val Thr Thr Ser Val Ala Thr Gly  
50 55 60  
Asp Tyr Ser Ile Leu Met Asn Val Ser Trp Val Leu Arg Ala Asp  
65 70 75  
Ala Ser Ile Arg Leu Leu Lys Ala Thr Lys Ile Cys Val Thr Gly  
80 85 90  
Lys Ser Asn Phe Gln Ser Tyr Ser Cys Val Arg Cys Asn Tyr Thr  
95 100 105  
Glu Ala Phe Gln Thr Gln Thr Arg Pro Ser Gly Gly Lys Trp Thr  
110 115 120  
Phe Ser Tyr Ile Gly Phe Pro Val Glu Leu Asn Thr Val Tyr Phe  
125 130 135  
Ile Gly Ala His Asn Ile Pro Asn Ala Asn Met Asn Glu Asp Gly  
140 145 150  
Pro Ser Met Ser Val Asn Phe Thr Ser Pro Gly Cys Leu Asp His  
155 160 165  
Ile Met Lys Tyr Lys Lys Lys Cys Val Lys Ala Gly Ser Leu Trp  
170 175 180  
Asp Pro Asn Ile Thr Ala Cys Lys Lys Asn Glu Glu Thr Val Glu  
185 190 195  
Val Asn Phe Thr Thr Thr Pro Leu Gly Asn Arg Tyr Met Ala Leu

				200						205					210
Ile	Gln	His	Ser	Thr	Ile	Ile	Gly	Phe	Ser	Gln	Val	Phe	Glu	Pro	
				215					220					225	
His	Gln	Lys	Lys	Gln	Thr	Arg	Ala	Ser	Val	Val	Ile	Pro	Val	Thr	
				230					235					240	
Gly	Asp	Ser	Glu	Gly	Ala	Thr	Val	Gln	Leu	Thr	Pro	Tyr	Phe	Pro	
				245					250					255	
Thr	Cys	Gly	Ser	Asp	Cys	Ile	Arg	His	Lys	Gly	Thr	Val	Val	Leu	
				260					265					270	
Cys	Pro	Gln	Thr	Gly	Val	Pro	Phe	Pro	Leu	Asp	Asn	Asn	Lys	Ser	
				275					280					285	
Lys	Pro	Gly	Gly	Trp	Leu	Pro	Leu	Leu	Leu	Leu	Ser	Leu	Leu	Val	
				290					295					300	
Ala	Thr	Trp	Val	Leu	Val	Ala	Gly	Ile	Tyr	Leu	Met	Trp	Arg	His	
				305					310					315	
Glu	Arg	Ile	Lys	Lys	Thr	Ser	Phe	Ser	Thr	Thr	Thr	Leu	Leu	Pro	
				320					325					330	
Pro	Ile	Lys	Val	Leu	Val	Val	Tyr	Pro	Ser	Glu	Ile	Cys	Phe	His	
				335					340					345	
His	Thr	Ile	Cys	Tyr	Phe	Thr	Glu	Phe	Leu	Gln	Asn	His	Cys	Arg	
				350					355					360	
Ser	Glu	Val	Ile	Leu	Glu	Lys	Trp	Gln	Lys	Lys	Lys	Ile	Ala	Glu	
				365					370					375	
Met	Gly	Pro	Val	Gln	Trp	Leu	Ala	Thr	Gln	Lys	Lys	Ala	Ala	Asp	
				380					385					390	
Lys	Val	Val	Phe	Leu	Leu	Ser	Asn	Asp	Val	Asn	Ser	Val	Cys	Asp	
				395					400					405	
Gly	Thr	Cys	Gly	Lys	Ser	Glu	Gly	Ser	Pro	Ser	Glu	Asn	Ser	Gln	
				410					415					420	
Asp	Leu	Phe	Pro	Leu	Ala	Phe	Asn	Leu	Phe	Cys	Ser	Asp	Leu	Arg	
				425					430					435	
Ser	Gln	Ile	His	Leu	His	Lys	Tyr	Val	Val	Val	Tyr	Phe	Arg	Glu	
				440					445					450	
Ile	Asp	Thr	Lys	Asp	Asp	Tyr	Asn	Ala	Leu	Ser	Val	Cys	Pro	Lys	
				455					460					465	
Tyr	His	Leu	Met	Lys	Asp	Ala	Thr	Ala	Phe	Cys	Ala	Glu	Leu	Leu	
				470					475					480	
His	Val	Lys	Gln	Gln	Val	Ser	Ala	Gly	Lys	Arg	Ser	Gln	Ala	Cys	

485

490

495

His Asp Gly Cys Cys Ser Leu  
500

&lt;210&gt; 159

&lt;211&gt; 535

&lt;212&gt; DNA

&lt;213&gt; Homo Sapien

&lt;400&gt; 159

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agttgcccg cgtgtccagg aggtagtatg aagcttgaca ttggcatcat 200

caatgaaaac cagcgcgttt ccatgtcacg taacatcgag agccgctcca 250

cctccccctg gaattacact gtcacttggg accccaaccg gtaccctctg 300

gaagttgtac aggcccagtg taggaacttg ggctgcatca atgctcaagg 350

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gcagtaagag gtgcatatcc actcagctga agaag 535

&lt;210&gt; 160

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo Sapien

&lt;400&gt; 160

Met	Thr	Val	Lys	Thr	Leu	His	Gly	Pro	Ala	Met	Val	Lys	Tyr	Leu
1				5				10						15

Leu	Leu	Ser	Ile	Leu	Gly	Leu	Ala	Phe	Leu	Ser	Glu	Ala	Ala	Ala
				20				25						30

Arg	Lys	Ile	Pro	Lys	Val	Gly	His	Thr	Phe	Phe	Gln	Lys	Pro	Glu
				35				40						45

Ser	Cys	Pro	Pro	Val	Pro	Gly	Gly	Ser	Met	Lys	Leu	Asp	Ile	Gly
				50				55						60

Ile	Ile	Asn	Glu	Asn	Gln	Arg	Val	Ser	Met	Ser	Arg	Asn	Ile	Glu
				65				70						75

Ser	Arg	Ser	Thr	Ser	Pro	Trp	Asn	Tyr	Thr	Val	Thr	Trp	Asp	Pro
				80				85						90

Asn	Arg	Tyr	Pro	Ser	Glu	Val	Val	Gln	Ala	Gln	Cys	Arg	Asn	Leu
				95					100					105
Gly	Cys	Ile	Asn	Ala	Gln	Gly	Lys	Glu	Asp	Ile	Ser	Met	Asn	Ser
			110						115					120
Val	Pro	Ile	Gln	Gln	Glu	Thr	Leu	Val	Val	Arg	Arg	Lys	His	Gln
			125						130					135
Gly	Cys	Ser	Val	Ser	Phe	Gln	Leu	Glu	Lys	Val	Leu	Val	Thr	Val
			140						145					150
Gly	Cys	Thr	Cys	Val	Thr	Pro	Val	Ile	His	His	Val	Gln		
			155						160					

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 <211> 2380  
 <212> DNA  
 <213> Homo Sapien

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 cacgggctga ctggggtgtc tgccccctt gggggggggc agcacagggc 200  
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tcagccagcc ctggatagct acttccatcc cccggggact cccgcgccgg 2300  
gacgcggggt gggaccaggg gcgggacctg gggcggggga cgggacttaa 2350



ataaaggcag acgctgtttt tctaaaaaaa 2380

<210> 162

<211> 705

<212> PRT

<213> Homo Sapien

<400> 162

Met	Pro	Val	Pro	Trp	Phe	Leu	Leu	Ser	Leu	Ala	Leu	Gly	Arg	Ser
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Pro	Val	Val	Leu	Ser	Leu	Glu	Arg	Leu	Val	Gly	Pro	Gln	Asp	Ala
			20						25					30

Thr	His	Cys	Ser	Pro	Gly	Leu	Ser	Cys	Arg	Leu	Trp	Asp	Ser	Asp
			35						40					45

Ile	Leu	Cys	Leu	Pro	Gly	Asp	Ile	Val	Pro	Ala	Pro	Gly	Pro	Val
			50						55					60

Leu	Ala	Pro	Thr	His	Leu	Gln	Thr	Glu	Leu	Val	Leu	Arg	Cys	Gln
			65						70					75

Lys	Glu	Thr	Asp	Cys	Asp	Leu	Cys	Leu	Arg	Val	Ala	Val	His	Leu
			80						85					90

Ala	Val	His	Gly	His	Trp	Glu	Glu	Pro	Glu	Asp	Glu	Glu	Lys	Phe
			95						100					105

Gly	Gly	Ala	Ala	Asp	Ser	Gly	Val	Glu	Glu	Pro	Arg	Asn	Ala	Ser
			110						115					120

Leu	Gln	Ala	Gln	Val	Val	Leu	Ser	Phe	Gln	Ala	Tyr	Pro	Thr	Ala
			125						130					135

Arg	Cys	Val	Leu	Leu	Glu	Val	Gln	Val	Pro	Ala	Ala	Leu	Val	Gln
			140						145					150

Phe	Gly	Gln	Ser	Val	Gly	Ser	Val	Val	Tyr	Asp	Cys	Phe	Glu	Ala
			155						160					165

Ala	Leu	Gly	Ser	Glu	Val	Arg	Ile	Trp	Ser	Tyr	Thr	Gln	Pro	Arg
			170						175					180

Tyr	Glu	Lys	Glu	Leu	Asn	His	Thr	Gln	Gln	Leu	Pro	Ala	Leu	Pro
			185						190					195

Trp	Leu	Asn	Val	Ser	Ala	Asp	Gly	Asp	Asn	Val	His	Leu	Val	Leu
			200						205					210

Asn	Val	Ser	Glu	Glu	Gln	His	Phe	Gly	Leu	Ser	Leu	Tyr	Trp	Asn
			215						220					225

Gln	Val	Gln	Gly	Pro	Pro	Lys	Pro	Arg	Trp	His	Lys	Asn	Leu	Thr
			230						235					240

Gly	Pro	Gln	Ile	Ile	Thr	Leu	Asn	His	Thr	Asp	Leu	Val	Pro	Cys
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

245								250				255			
Leu	Cys	Ile	Gln	Val	Trp	Pro	Leu	Glu	Pro	Asp	Ser	Val	Arg	Thr	
				260					265					270	
Asn	Ile	Cys	Pro	Phe	Arg	Glu	Asp	Pro	Arg	Ala	His	Gln	Asn	Leu	
				275					280					285	
Trp	Gln	Ala	Ala	Arg	Leu	Arg	Leu	Leu	Thr	Leu	Gln	Ser	Trp	Leu	
				290					295					300	
Leu	Asp	Ala	Pro	Cys	Ser	Leu	Pro	Ala	Glu	Ala	Ala	Leu	Cys	Trp	
				305					310					315	
Arg	Ala	Pro	Gly	Gly	Asp	Pro	Cys	Gln	Pro	Leu	Val	Pro	Pro	Leu	
				320					325					330	
Ser	Trp	Glu	Asn	Val	Thr	Val	Asp	Lys	Val	Leu	Glu	Phe	Pro	Leu	
				335					340					345	
Leu	Lys	Gly	His	Pro	Asn	Leu	Cys	Val	Gln	Val	Asn	Ser	Ser	Glu	
				350					355					360	
Lys	Leu	Gln	Leu	Gln	Glu	Cys	Leu	Trp	Ala	Asp	Ser	Leu	Gly	Pro	
				365					370					375	
Leu	Lys	Asp	Asp	Val	Leu	Leu	Leu	Glu	Thr	Arg	Gly	Pro	Gln	Asp	
				380					385					390	
Asn	Arg	Ser	Leu	Cys	Ala	Leu	Glu	Pro	Ser	Gly	Cys	Thr	Ser	Leu	
				395					400					405	
Pro	Ser	Lys	Ala	Ser	Thr	Arg	Ala	Ala	Arg	Leu	Gly	Glu	Tyr	Leu	
				410					415					420	
Leu	Gln	Asp	Leu	Gln	Ser	Gly	Gln	Cys	Leu	Gln	Leu	Trp	Asp	Asp	
				425					430					435	
Asp	Leu	Gly	Ala	Leu	Trp	Ala	Cys	Pro	Met	Asp	Lys	Tyr	Ile	His	
				440					445					450	
Lys	Arg	Trp	Ala	Leu	Val	Trp	Leu	Ala	Cys	Leu	Leu	Phe	Ala	Ala	
				455					460					465	
Ala	Leu	Ser	Leu	Ile	Leu	Leu	Leu	Lys	Lys	Asp	His	Ala	Lys	Gly	
				470					475					480	
Trp	Leu	Arg	Leu	Leu	Lys	Gln	Asp	Val	Arg	Ser	Gly	Ala	Ala	Ala	
				485					490					495	
Arg	Gly	Arg	Ala	Ala	Leu	Leu	Leu	Tyr	Ser	Ala	Asp	Asp	Ser	Gly	
				500					505					510	
Phe	Glu	Arg	Leu	Val	Gly	Ala	Leu	Ala	Ser	Ala	Leu	Cys	Gln	Leu	
				515					520					525	
Pro	Leu	Arg	Val	Ala	Val	Asp	Leu	Trp	Ser	Arg	Arg	Glu	Leu	Ser	

	530		535		540
Ala Gln Gly Pro Val Ala Trp Phe His	Ala Gln Arg Arg Gln Thr				
545	550			555	
Leu Gln Glu Gly Gly Val Val Val Leu	Leu Phe Ser Pro Gly Ala				
560	565			570	
Val Ala Leu Cys Ser Glu Trp Leu Gln	Asp Gly Val Ser Gly Pro				
575	580			585	
Gly Ala His Gly Pro His Asp Ala Phe	Arg Ala Ser Leu Ser Cys				
590	595			600	
Val Leu Pro Asp Phe Leu Gln Gly Arg	Ala Pro Gly Ser Tyr Val				
605	610			615	
Gly Ala Cys Phe Asp Arg Leu Leu His	Pro Asp Ala Val Pro Ala				
620	625			630	
Leu Phe Arg Thr Val Pro Val Phe Thr	Leu Pro Ser Gln Leu Pro				
635	640			645	
Asp Phe Leu Gly Ala Leu Gln Gln Pro	Arg Ala Pro Arg Ser Gly				
650	655			660	
Arg Leu Gln Glu Arg Ala Glu Gln Val	Ser Arg Ala Leu Gln Pro				
665	670			675	
Ala Leu Asp Ser Tyr Phe His Pro Pro	Gly Thr Pro Ala Pro Gly				
680	685			690	
Arg Gly Val Gly Pro Gly Ala Gly Pro	Gly Ala Gly Asp Gly Thr				
695	700			705	

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 <212> DNA  
 <213> Homo Sapien

<400> 163  
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 ggcgatggcc accggctaac cctggaagac atcttccatg acctgttcta 200  
 ccacttagag ctccaggtca accgcaccta ccaaattgcac cttggaggga 250  
 agcagagaga atatgagttc ttccggcctga cccctgacac agagttectt 300  
 ggcaccatca tgatttgctg tccacactgg gccaaaggaga gtgcccccta 350  
 catgtgccga gtgaagacac tgccagaccg gacatggacc tactccttct 400

ccggagcctt cctgtttctcc atgggcttcc tcgtcgcagt actctgctac 450  
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 <211> 574  
 <212> PRT  
 <213> Homo Sapien

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 35 40 45  
 Glu Gly Thr Pro Asp Thr Val Tyr Ser Ile Glu Tyr Lys Thr Tyr  
 50 55 60  
 Gly Glu Arg Asp Trp Val Ala Lys Lys Gly Cys Gln Arg Ile Thr  
 65 70 75  
 Arg Lys Ser Cys Asn Leu Thr Val Glu Thr Gly Asn Leu Thr Glu  
 80 85 90  
 Leu Tyr Tyr Ala Arg Val Thr Ala Val Ser Ala Gly Gly Arg Ser  
 95 100 105  
 Ala Thr Lys Met Thr Asp Arg Phe Ser Ser Leu Gln His Thr Thr  
 110 115 120  
 Leu Lys Pro Pro Asp Val Thr Cys Ile Ser Lys Val Arg Ser Ile

				125						130				135
Gln	Met	Ile	Val	His	Pro	Thr	Pro	Thr	Pro	Ile	Arg	Ala	Gly	Asp
				140					145					150
Gly	His	Arg	Leu	Thr	Leu	Glu	Asp	Ile	Phe	His	Asp	Leu	Phe	Tyr
				155					160					165
His	Leu	Glu	Leu	Gln	Val	Asn	Arg	Thr	Tyr	Gln	Met	His	Leu	Gly
				170					175					180
Gly	Lys	Gln	Arg	Glu	Tyr	Glu	Phe	Phe	Gly	Leu	Thr	Pro	Asp	Thr
				185					190					195
Glu	Phe	Leu	Gly	Thr	Ile	Met	Ile	Cys	Val	Pro	Thr	Trp	Ala	Lys
				200					205					210
Glu	Ser	Ala	Pro	Tyr	Met	Cys	Arg	Val	Lys	Thr	Leu	Pro	Asp	Arg
				215					220					225
Thr	Trp	Thr	Tyr	Ser	Phe	Ser	Gly	Ala	Phe	Leu	Phe	Ser	Met	Gly
				230					235					240
Phe	Leu	Val	Ala	Val	Leu	Cys	Tyr	Leu	Ser	Tyr	Arg	Tyr	Val	Thr
				245					250					255
Lys	Pro	Pro	Ala	Pro	Pro	Asn	Ser	Leu	Asn	Val	Gln	Arg	Val	Leu
				260					265					270
Thr	Phe	Gln	Pro	Leu	Arg	Phe	Ile	Gln	Glu	His	Val	Leu	Ile	Pro
				275					280					285
Val	Phe	Asp	Leu	Ser	Gly	Pro	Ser	Ser	Leu	Ala	Gln	Pro	Val	Gln
				290					295					300
Tyr	Ser	Gln	Ile	Arg	Val	Ser	Gly	Pro	Arg	Glu	Pro	Ala	Gly	Ala
				305					310					315
Pro	Gln	Arg	His	Ser	Leu	Ser	Glu	Ile	Thr	Tyr	Leu	Gly	Gln	Pro
				320					325					330
Asp	Ile	Ser	Ile	Leu	Gln	Pro	Ser	Asn	Val	Pro	Pro	Pro	Gln	Ile
				335					340					345
Leu	Ser	Pro	Leu	Ser	Tyr	Ala	Pro	Asn	Ala	Ala	Pro	Glu	Val	Gly
				350					355					360
Pro	Pro	Ser	Tyr	Ala	Pro	Gln	Val	Thr	Pro	Glu	Ala	Gln	Phe	Pro
				365					370					375
Phe	Tyr	Ala	Pro	Gln	Ala	Ile	Ser	Lys	Val	Gln	Pro	Ser	Ser	Tyr
				380					385					390
Ala	Pro	Gln	Ala	Thr	Pro	Asp	Ser	Trp	Pro	Pro	Ser	Tyr	Gly	Val
				395					400					405
Cys	Met	Glu	Gly	Ser	Gly	Lys	Asp	Ser	Pro	Thr	Gly	Thr	Leu	Ser

410					415					420				
Ser	Pro	Lys	His	Leu	Arg	Pro	Lys	Gly	Gln	Leu	Gln	Lys	Glu	Pro
				425					430					435
Pro	Ala	Gly	Ser	Cys	Met	Leu	Gly	Gly	Leu	Ser	Leu	Gln	Glu	Val
				440					445					450
Thr	Ser	Leu	Ala	Met	Glu	Glu	Ser	Gln	Glu	Ala	Lys	Ser	Leu	His
				455					460					465
Gln	Pro	Leu	Gly	Ile	Cys	Thr	Asp	Arg	Thr	Ser	Asp	Pro	Asn	Val
				470					475					480
Leu	His	Ser	Gly	Glu	Glu	Gly	Thr	Pro	Gln	Tyr	Leu	Lys	Gly	Gln
				485					490					495
Leu	Pro	Leu	Leu	Ser	Ser	Val	Gln	Ile	Glu	Gly	His	Pro	Met	Ser
				500					505					510
Leu	Pro	Leu	Gln	Pro	Pro	Ser	Gly	Pro	Cys	Ser	Pro	Ser	Asp	Gln
				515					520					525
Gly	Pro	Ser	Pro	Trp	Gly	Leu	Leu	Glu	Ser	Leu	Val	Cys	Pro	Lys
				530					535					540
Asp	Glu	Ala	Lys	Ser	Pro	Ala	Pro	Glu	Thr	Ser	Asp	Leu	Glu	Gln
				545					550					555
Pro	Thr	Glu	Leu	Asp	Ser	Leu	Phe	Arg	Gly	Leu	Ala	Leu	Thr	Val
				560					565					570

Gln Trp Glu Ser

<210> 165

<211> 1060

<212> DNA

<213> Homo Sapien

<400> 165

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gtggccacaa catggctgcg gcgcgggggc tgctottctg gctgttcgtg 100

ctggggggcgc tctggtgggt cccggggccag tcggatctca gccacggacg 150

gcgttttctcg gacctcaaag tgtgcgggga cgaagagtgc agcatgttaa 200

tgtaccgtgg gaaagctctt gaagacttca cgggccctga ttgtcgtttt 250

gtgaatttta aaaaagggtga cgatgtatat gtctactaca aactggcagg 300

gggatccctt gaactttggg ctggaagtgt tgaacacagt tttggatatt 350

ttccaaaaga tttgatcaag gtacttcata aatacacgga agaagagcta 400

catattccag cagatgagac agactttgtc tgctttgaag gaggaagaga 450  
tgattttaat agttataatg tagaagagct tttaggatct ttggaactgg 500  
aggactctgt acctgaagag tcgaagaaag ctgaagaagt ttctcagcac 550  
agagagaaat ctctgagga gtctcggggg cgtgaacttg accctgtgcc 600  
tgagcccgag gcattcagag ctgattcaga ggatggagaa ggtgctttct 650  
cagagagcac cgaggggctg cagggacagc cctcagctca ggagagccac 700  
cctcacacca gcggtcctgc ggctaacgct cagggagtgct agtcttcggt 750  
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aaagcagaac tggcaatagt tctcctgcct cgggtggagcg ggagaagaca 850  
gatgcttaca aagtcttgaa aacagaaatg agtcagagag gaagtggaca 900  
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tgttttacaa agattgtttt tagtactaag ctgccttggc agtttgcatt 1000  
tttgagccaa acaaaaatat attattttcc cttctaagta aaaaaaaaaa 1050  
aaaaaaaaaa 1060

<210> 166

<211> 303

<212> PRT

<213> Homo Sapien

<400> 166

Met	Ala	Ala	Ala	Pro	Gly	Leu	Leu	Phe	Trp	Leu	Phe	Val	Leu	Gly
1				5					10					15
Ala	Leu	Trp	Trp	Val	Pro	Gly	Gln	Ser	Asp	Leu	Ser	His	Gly	Arg
				20					25					30
Arg	Phe	Ser	Asp	Leu	Lys	Val	Cys	Gly	Asp	Glu	Glu	Cys	Ser	Met
				35					40					45
Leu	Met	Tyr	Arg	Gly	Lys	Ala	Leu	Glu	Asp	Phe	Thr	Gly	Pro	Asp
				50					55					60
Cys	Arg	Phe	Val	Asn	Phe	Lys	Lys	Gly	Asp	Asp	Val	Tyr	Val	Tyr
				65					70					75
Tyr	Lys	Leu	Ala	Gly	Gly	Ser	Leu	Glu	Leu	Trp	Ala	Gly	Ser	Val
				80					85					90
Glu	His	Ser	Phe	Gly	Tyr	Phe	Pro	Lys	Asp	Leu	Ile	Lys	Val	Leu
				95					100					105
His	Lys	Tyr	Thr	Glu	Glu	Glu	Leu	His	Ile	Pro	Ala	Asp	Glu	Thr
				110					115					120



Asp	Phe	Val	Cys	Phe	Glu	Gly	Gly	Arg	Asp	Asp	Phe	Asn	Ser	Tyr	125	130	135
Asn	Val	Glu	Glu	Leu	Leu	Gly	Ser	Leu	Glu	Leu	Glu	Asp	Ser	Val	140	145	150
Pro	Glu	Glu	Ser	Lys	Lys	Ala	Glu	Glu	Val	Ser	Gln	His	Arg	Glu	155	160	165
Lys	Ser	Pro	Glu	Glu	Ser	Arg	Gly	Arg	Glu	Leu	Asp	Pro	Val	Pro	170	175	180
Glu	Pro	Glu	Ala	Phe	Arg	Ala	Asp	Ser	Glu	Asp	Gly	Glu	Gly	Ala	185	190	195
Phe	Ser	Glu	Ser	Thr	Glu	Gly	Leu	Gln	Gly	Gln	Pro	Ser	Ala	Gln	200	205	210
Glu	Ser	His	Pro	His	Thr	Ser	Gly	Pro	Ala	Ala	Asn	Ala	Gln	Gly	215	220	225
Val	Gln	Ser	Ser	Leu	Asp	Thr	Phe	Glu	Glu	Ile	Leu	His	Asp	Lys	230	235	240
Leu	Lys	Val	Pro	Gly	Ser	Glu	Ser	Arg	Thr	Gly	Asn	Ser	Ser	Pro	245	250	255
Ala	Ser	Val	Glu	Arg	Glu	Lys	Thr	Asp	Ala	Tyr	Lys	Val	Leu	Lys	260	265	270
Thr	Glu	Met	Ser	Gln	Arg	Gly	Ser	Gly	Gln	Cys	Val	Ile	His	Tyr	275	280	285
Ser	Lys	Gly	Phe	Arg	Trp	His	Gln	Asn	Leu	Ser	Leu	Phe	Tyr	Lys	290	295	300

Asp Cys Phe

<210> 167

<211> 2570

<212> DNA

<213> Homo Sapien

<400> 167

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agagaagcaa agcgcaacgg tgtggtccaa gccgggggctt ctgcttcgcc 100

tctaggacat acacgggacc ccctaacttc agtcccccaa acgcgcaccc 150

tcgaagtctt gaactccagc cccgcacatc cacgcgcggc acaggcgcgg 200

caggcggcag gtcccggccg aaggcgatgc gcgcaggggg tcgggcagct 250

gggctcgggc ggcgggagta gggcccggca gggaggcagg gaggctgcat 300

attcagagtc gcgggctgcg ccctgggcag aggccgcctt cgctccacgc 350  
 aacacctgct gctgccaccg cgccgcgatg agccgcgtgg tctcgctgct 400  
 gctgggagcc gcgctgctct gcggccacgg agccttctgc cgccgcgtgg 450  
 tcagcggcca aaaggtgtgt tttgctgact tcaagcatcc ctgctacaaa 500  
 atggcctact tccatgaact gtccagccga gtgagctttc aggaggcacg 550  
 cctggcttgt gagagtgagg gaggagtcct cctcagcctt gagaatgaag 600  
 cagaacagaa gttaatagag agcatgttgc aaaacctgac aaaaccggg 650  
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 aagatgaact gtaagctccc ccttgaggca aatattaaag taatttttat 1350  
 atgtctatta tttcatttaa agaataatgct gtgctaataa tggagtgaga 1400  
 catgcttatt ttgctaaagg atgcacccaa acttcaaact tcaagcaaat 1450  
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 gttagaagca attcctttta tttctttcac ctttcataag ttgttatcta 1550  
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 aaacctcttc aaacatttta cttagaggca aggattgtct aatttcaatt 1900  
 gtgcaagaca tgtgccttat aattatTTTT agcttaaaat taaacagatt 1950  
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 ttgcctatat aatgagaagc agctctctga gggttctgaa atcaatgtgg 2100  
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 caagagaaag ttgtaactct ctggcttcca tatgtccctg tgctcctttt 2500  
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<210> 168  
 <211> 273  
 <212> PRT  
 <213> Homo Sapien

<400> 168  
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 Gly His Gly Ala Phe Cys Arg Arg Val Val Ser Gly Gln Lys Val  
 20 25 30  
 Cys Phe Ala Asp Phe Lys His Pro Cys Tyr Lys Met Ala Tyr Phe  
 35 40 45  
 His Glu Leu Ser Ser Arg Val Ser Phe Gln Glu Ala Arg Leu Ala  
 50 55 60  
 Cys Glu Ser Glu Gly Gly Val Leu Leu Ser Leu Glu Asn Glu Ala  
 65 70 75  
 Glu Gln Lys Leu Ile Glu Ser Met Leu Gln Asn Leu Thr Lys Pro  
 80 85 90

Gly Thr Gly Ile Ser Asp Gly Asp Phe Trp Ile Gly Leu Trp Arg		
	95	100 105
Asn Gly Asp Gly Gln Thr Ser Gly Ala Cys Pro Asp Leu Tyr Gln		
	110	115 120
Trp Ser Asp Gly Ser Asn Ser Gln Tyr Arg Asn Trp Tyr Thr Asp		
	125	130 135
Glu Pro Ser Cys Gly Ser Glu Lys Cys Val Val Met Tyr His Gln		
	140	145 150
Pro Thr Ala Asn Pro Gly Leu Gly Gly Pro Tyr Leu Tyr Gln Trp		
	155	160 165
Asn Asp Asp Arg Cys Asn Met Lys His Asn Tyr Ile Cys Lys Tyr		
	170	175 180
Glu Pro Glu Ile Asn Pro Thr Ala Pro Val Glu Lys Pro Tyr Leu		
	185	190 195
Thr Asn Gln Pro Gly Asp Thr His Gln Asn Val Val Val Thr Glu		
	200	205 210
Ala Gly Ile Ile Pro Asn Leu Ile Tyr Val Val Ile Pro Thr Ile		
	215	220 225
Pro Leu Leu Leu Leu Ile Leu Val Ala Phe Gly Thr Cys Cys Phe		
	230	235 240
Gln Met Leu His Lys Ser Lys Gly Arg Thr Lys Thr Ser Pro Asn		
	245	250 255
Gln Ser Thr Leu Trp Ile Ser Lys Ser Thr Arg Lys Glu Ser Gly		
	260	265 270
Met Glu Val		

<210> 169

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 169

tgtaaaacga cggccagtta aatagacctg caattattaa tct 43

<210> 170

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 170

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